

The NATION'S SCHOOLS

DEVOTED TO THE APPLICATION OF
RESEARCH TO THE BUILDING, EQUIPMENT
AND ADMINISTRATION OF SCHOOLS

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1929



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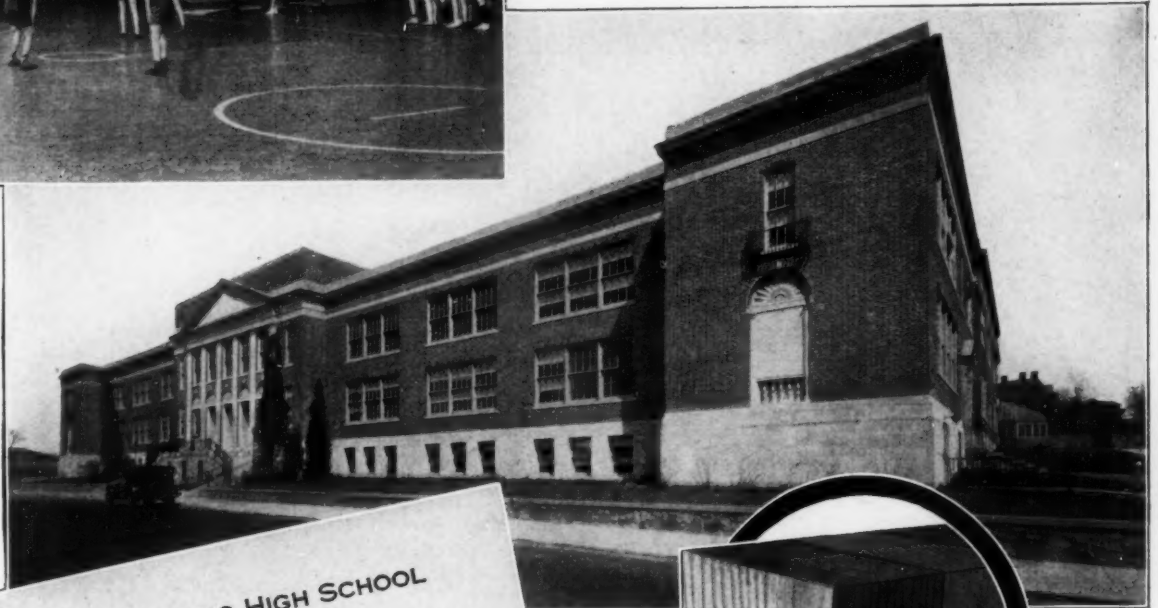
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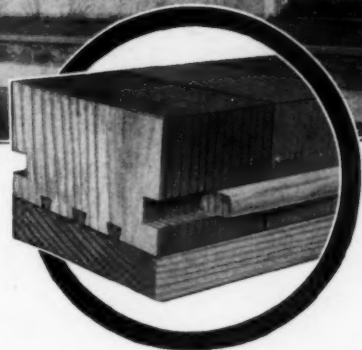
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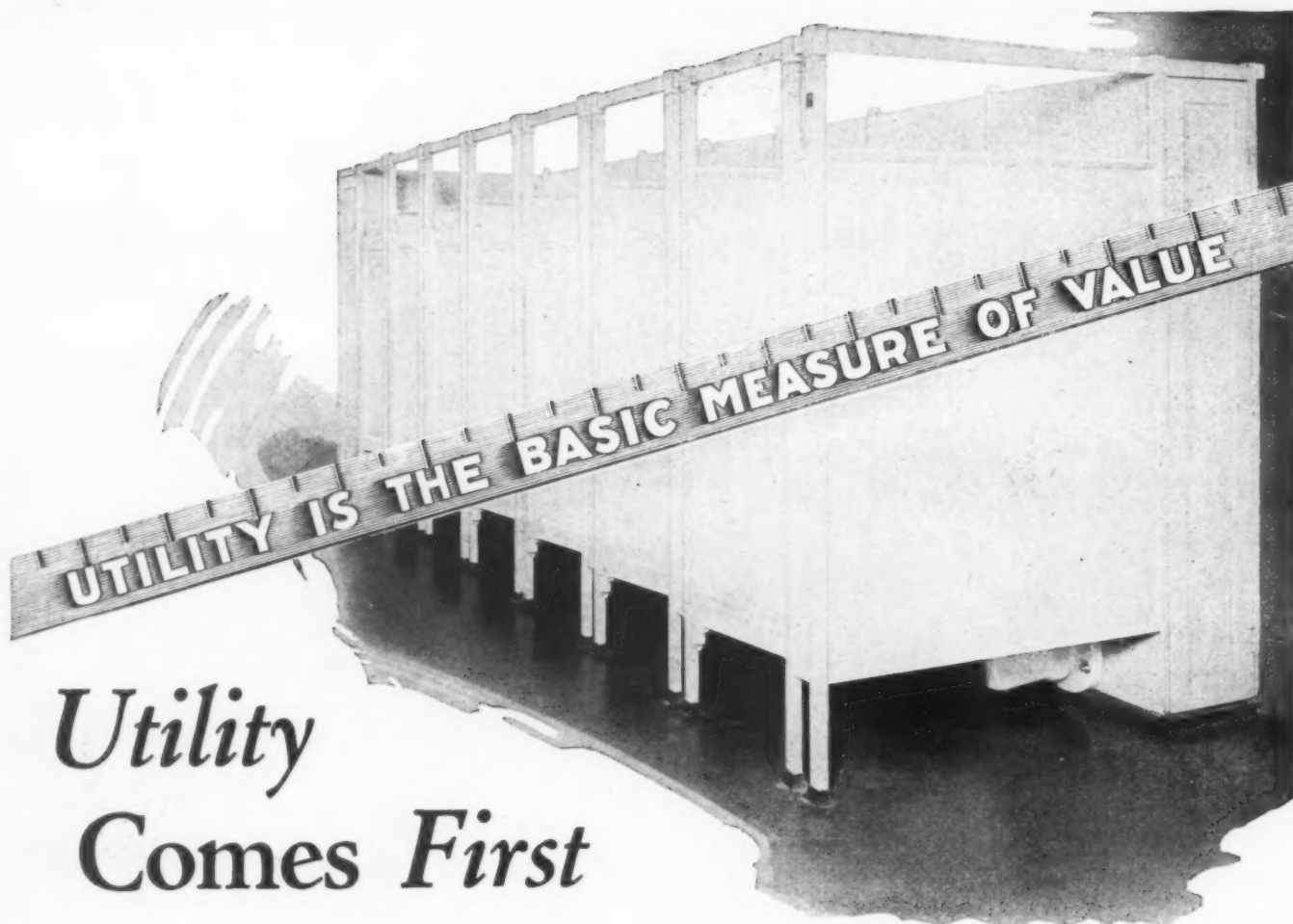
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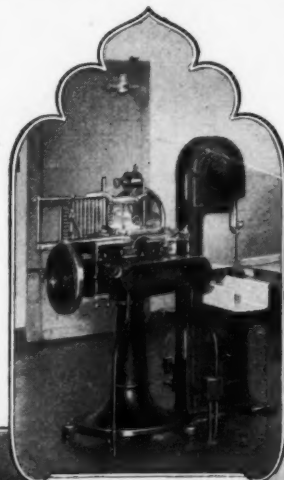
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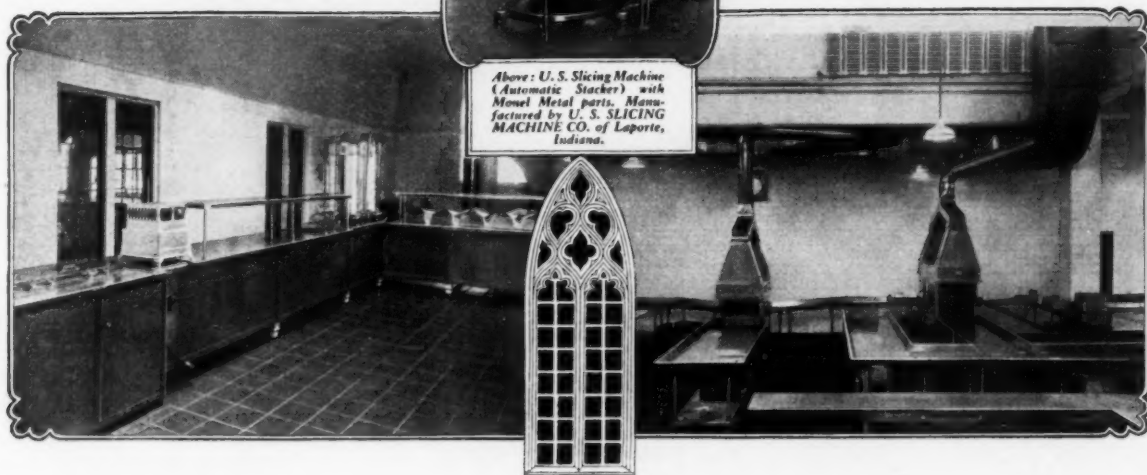
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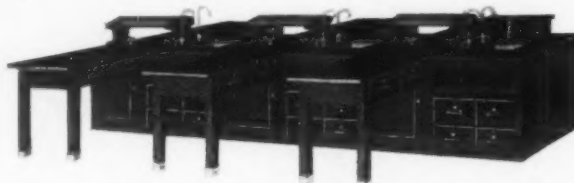
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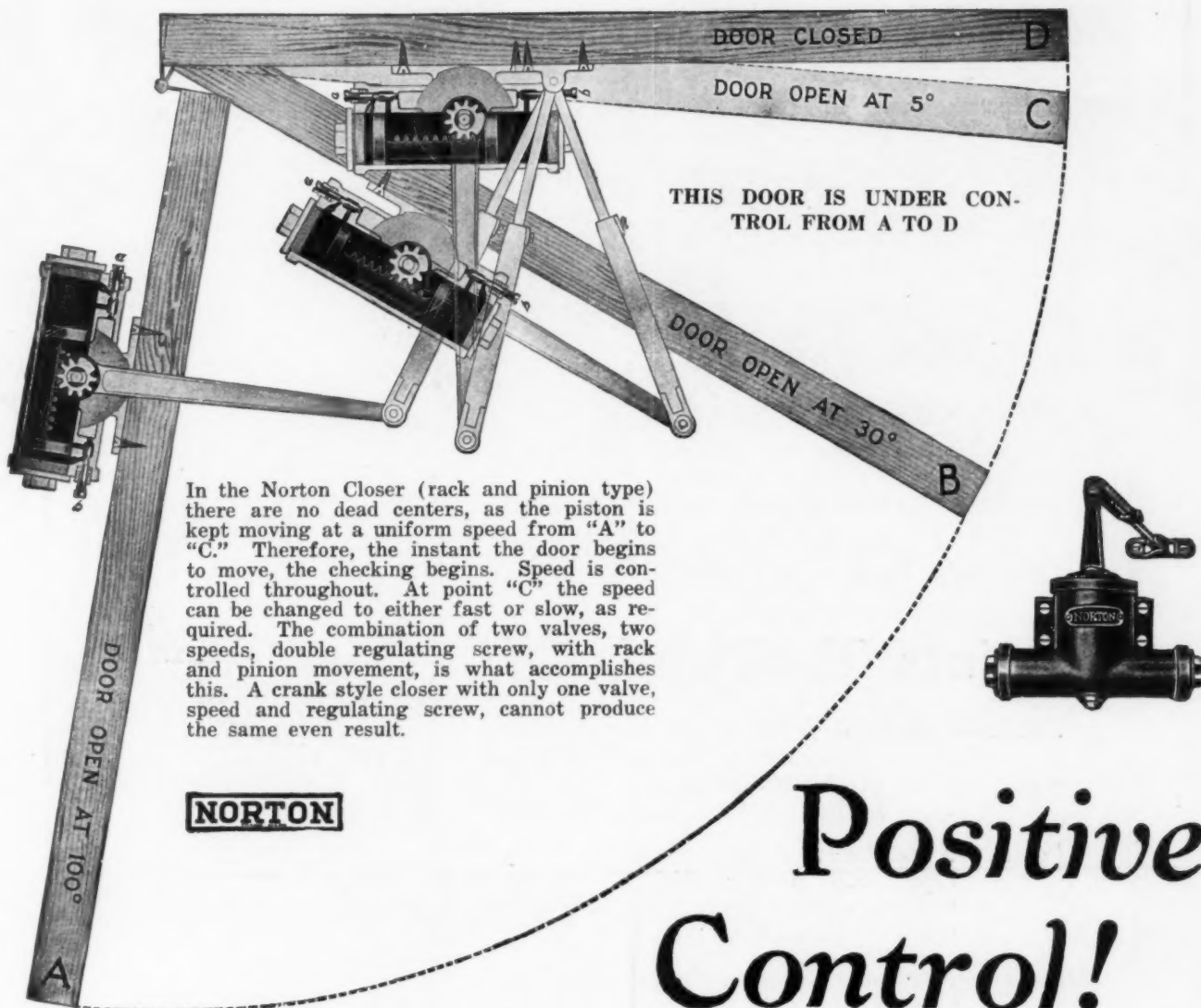
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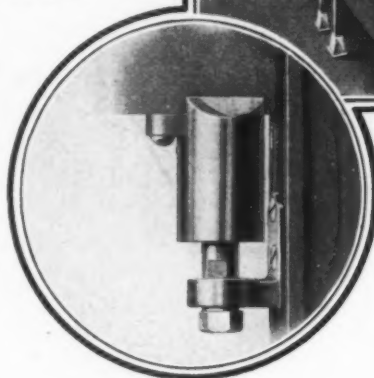
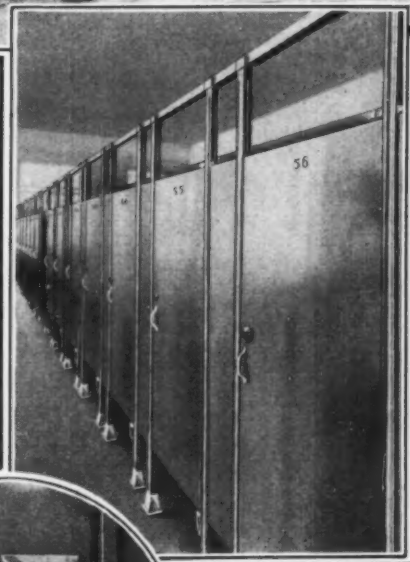
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Agents in Principal Cities



Veneer-Steel Partitions

With the Publisher

THE NATION'S SCHOOLS is primarily a journal for the full-time school executive—the superintendent, the business manager, the high-school principal, the head master in the residential school, the executive in the private school, college and university.

What excellent company among subscribers! What a privilege for the publisher. What large opportunity here for the field to concentrate its problems of building, equipment and administration, in a medium devoid to a large degree of pedagogy, which is to-day being ably treated in the purely educational journal.

And school superintendency—we wonder how many of our readers perused the article on "The City School Superintendent—A Professional Leader," written by J. Cayce Morrison for the issue of October last. Here the growing responsibilities of the superintendent were analyzed and outlined.

According to Mr. Morrison, who presented a summary of the functions of the superintendent in forty-five states—excluding Florida, Georgia and Maryland where county organization exists—the high status of the superintendent is clearly revealed. In 84 per cent of the forty-five states reviewed, the superintendent prepares the annual school budget. In 57 per cent he prepares the plans for new construction programs. In 88 per cent he has charge of rents, repairs and insurance. In 73 per cent he guides the selection and purchase of instructional supplies for the school.

Again, quoting some facts developed by the Bureau of Education, in three-fourths of cities throughout the United States the superintendent assists in the planning of

building programs. In two-thirds of cities he represents the school in the matter of supervising the construction of new buildings. In three-fifths he is held responsible for upkeep.

This is excellent testimony of the trend in school administration and of the importance of the superintendent who is by experience and training, the logical, qualified executive of the school field.

As further testimony let us quote a statement made some time ago by W. S. Deffenbaugh, chief of city school division, Bureau of Education:

"The most important office is that of superintendent of schools . . . The relation of a school board to its superintendent does not differ materially from the relation that a board of bank directors sustains to the cashier or the president of a bank, or that a board of directors of any private corporation sustains to the superintendent it employs. The stockholders in a private corporation elect a board of directors to look after their interests in the conduct of the enterprise. These directors know but little about the technical details of the business they are empowered to administer. Few, if any, could do the work of one of the clerks or mechanics, much less supervise it. They therefore employ a superintendent to do this and hold him responsible for results. If he cannot conduct the business so as to declare dividends, he must show why he cannot. In fact, upon his shoulders rests much vital executive responsibility."

It is this responsibility that The NATION'S SCHOOLS recognizes and that it believes will soon be universally acknowledged in the interests of more effective development of the modern school.

The NATION'S SCHOOLS.

The Fracture Appliance

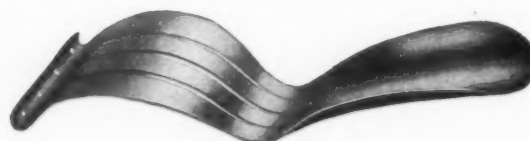
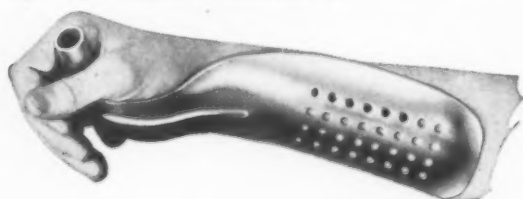
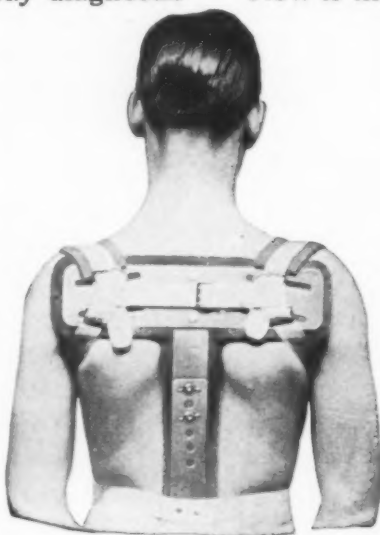
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DEVOTED TO THE APPLICATION OF RESEARCH TO
THE BUILDING, EQUIPMENT AND ADMINISTRATION OF SCHOOLS

VOLUME III

JANUARY, 1929

NUMBER 1

Rebuilding the Curriculum in Line With Its True Function

*Intelligent unrest marks the attitude of educators
toward accepted methods of academic teaching found
to be unrelated to the busy world of human living*

BY PROFESSOR FRANKLIN BOBBITT, UNIVERSITY OF CHICAGO

WIDESPREAD dissatisfaction with the school curriculum is apparent and is shown mainly not by complaints or criticisms but by the constructive efforts directed toward changing it.

For six years a Commission on the Reorganization of Secondary Education labored to reformulate the curriculum of the high school. It did not succeed in doing so, but its serious and long continued attempt proved that the National Education Association was far from satisfied with the high-school curriculum. Its very name indicated that fundamental changes were deemed necessary. The presence of the Commission on the Revision of Elementary Education, although its success was even less, proved that there was similar dissatisfaction with elementary schooling. More recently, hundreds of towns and cities have been working upon the curriculum as they never have worked before. The National Department of Superintendence has been showing its realization of the situation by devoting all of its year-books during the past five years to the problem of rebuilding the curriculum. Numerous state and national committees have been working to the same end.

Such labors as these prove widespread dissatisfaction with the public-school program. None of these groups has yet reformulated the curriculum. Neither has any one of them told us how

it is to be done. They have not yet formulated even the general principles that are to offer guidance. But their work contributes to the ferment of ideas and labor out of which the reformulation eventually will appear.

Curriculum building is not now characterized by the easy insouciance of a decade or two ago. In that happy day a superintendent could sit down in his office for a few summer afternoons and formulate his courses of study. Or he could have committees of principals and teachers do it in a comparatively short time. It would all be done, even to the printing, in a single summer vacation. Now cities plan for a three or a five-year program before they expect the work to be finished. And in certain cities after this allotted time has been spent, it is found that fundamental problems are only then being discovered. The end appears to be in the rather distant future—if indeed there is any end. At last the profession is taking the curriculum seriously.

What Is Wrong With the Curriculum?

But what is wrong with the curriculum? What are its specific shortcomings? Our profession does not yet know. It is in the position of a person who is ill and who feels throughout his organism a profound but undefined discomfort. He knows that there is something the matter but he does not know what it is. That appears to be

about the situation of our profession at the moment.

We feel the irrelevancy of our merely academic subject teaching. The complex and busy world of human living goes thundering by while we sit apart, dealing with things that have little or no actual relation to it. In general we have thought the outside world to be none of our concern. And yet we have been unable to hide from ourselves the low grade, half civilized character of much of current living, both juvenile and adult, which is visible all about us all the time. We see the urgent need of an education that will take hold of this turmoil and elevate it to a level worthy of enlightened, public-spirited and fully civilized human beings. We cannot remain unconscious of the fact that a merely academic concern with algebra and French, with geography and general science, is so irrelevant as not to exert any effective influence on life. We realize the futility of trying to educate for human living by concerning ourselves with something else. Hence our professional discontent.

Preconceived Ideas Hinder Progress

This dissatisfaction has prompted vigorous labors but actual curriculum improvement has yet been small. And the reason is not lack of intelligence, not lack of zeal, but the fact that we are yet completely bound by our academic subject teaching preconceptions. And these will be dissipated only with the greatest difficulty. They are the outgrowth of eight years of elementary-school experience, from the ages of six to fourteen, and eight more years of high-school and college experience, from the ages of fourteen to twenty-two. Preconceptions of what education is and ought to be, which have been establishing themselves during 16,000 hours of sixteen impressionable years, acquire a fixity that is practically permanent. And to this most of us have added years of teaching and supervision that have taken for granted this same academic subject teaching, unrelated to current human living, as the only possible or desirable kind of education.

As a result of these practically unalterable attitudes toward the nature of the curriculum, teacher committees, however intelligent and diligent, are in general quite incapacitated for curriculum making, and supervisory officials are equally unsuited for the guidance of such work. For this reason little progress has yet been made. Thousands of such committees have been proceeding upon the assumption that the older type of curriculum is correct in its general character but imperfect in its details. So they set to work to improve the details. They seem to forget that

"there were giants in those old days" who were experts in the formulation of syllabuses of subject matter and of methods and devices for imparting that subject matter.

Starting out to improve that which has already been well done, the committees emerge from their long labors with syllabuses that, except in details, are not particularly different from those they started with. The general plan remains unchanged. The chief difference is in the abundance of the details. The syllabuses for the different subjects nowadays are issued as separate publications and constitute a small library. They present an impressive appearance. Yet the curriculum makers seem to be no better satisfied with the new formulation than they were with the old one, the reason being that we have just another well made device to help teachers to go on with the same old curriculum they have had for a generation or two. And that is just the thing they want to get away from.

We would not say that this labor of teacher committees is wasted effort. It is true that the amount of improvement of the curriculum is not commensurate with the labor expended, but if the program is ever to be properly modernized, most of the work must be done by teachers and supervisory officers. And they must first free themselves from the preconceptions that now hold their ideas in so fixed a form. Their present efforts are helping them to gain the necessary intellectual freedom.

High Grade Living Is Object of Education

What should the curriculum be? No one can speak with entire certainty, yet many things are becoming reasonably clear. To begin with, it seems it should aim definitely at the improvement of human living. The adult world, in which the juvenile world is intermingled, is carrying on its various activities of citizenship, health care, vocations, family life, recreation, conversation, observation, travel, music, reading and the like. A relatively small fraction of the population is reasonably proficient in the performance of these various activities. The majority of the population falls seriously short in the quality of its performance, a considerable portion of the people live blunderingly and badly.

We are coming to think that education should aim at establishing high grade human behavior for persons of all social classes. This does not mean uniformity of behavior, since differences in native capacity would make this forever impossible, even were it desirable. But in terms of the individual's original nature, there can be wholesome living equally for all.

The objective of education then is simply high grade living. Reduced to particulars, the objectives of education are the numerous activities that make up wholesome civilized living. Life does not consist of sitting around and nursing within oneself stored-up textbook subject matter. It consists of doing things. Life is one hundred per cent conduct. Education aims simply to extend the range and to elevate the character of this conduct. Let us make the factors clear by means of two illustrations.

Let us first take the case of safety education. Quite obviously this aims at behavior. It seeks to improve the current activity of playing safe. This is an activity that goes on as a part of community living. It is participated in by adults, youths and children. It may be carefully or carelessly performed. It is desirable that it be performed well. The aim of education is to bring all persons, but particularly children and youths, to proficiency in playing safe. This education does not look five or ten years ahead but concentrates upon what the children will be doing this evening, to-morrow morning, this week-end. The safety that we want is current safety. We need not concern ourselves in the slightest about the long distant future of these children. The safety problems in that distant future may be quite different from those of to-day. But whether they are different or not, we are certain that if we can bring children and youths to be watchful of their current performance of this activity, and can keep them watchful between the ages of six and eighteen, they will then be well prepared for continuing the activity throughout their adulthood. Their valuations, attitudes, and habits will have been properly shaped by the twelve years of practice. There is no better way of preparing for adult life.

Learning by Doing

The curriculum maker is interested not only in objectives but also in pupil activities. In this illustration, let us note that the child or the youth gets his training in safety by practice in currently playing safe. He gets the fundamentals of his education, then, while on the street evenings, mornings, Saturdays and during vacations. And this is the only practice that will make him entirely proficient in playing safe. His education in safety, then, is not fundamentally a school affair, but rather is a matter of proper participation in community living.

Yet the school has its share in the training. It must make clear to the pupil the nature of the dangers to be avoided and the things that he should do by way of avoiding them. It must

develop alertness and watchfulness and so supervise his performance as to keep these qualities operative. The school should cooperate with the parents so as to stimulate watchfulness at both ends of the line.

Let us note the fact that the school takes care of only the preliminary portions of education while practice of the activities within the community takes care of the fundamental portions. The school prepares for that current practice that really educates. The school prepares for education. Schooling and education are not at all synonymous. Schooling is the preliminary to education.

The entire series of activities, both those in school and those outside of school, constitutes the curriculum of safety training. They must be planned as portions of one program. So inter-related are the two halves that neither can exist alone. If either is attempted alone it becomes vitally changed in character and loses its educational effectiveness.

What Reading Does for Us

As a second illustration, of a more bookish type, let us take the activity of general reading. This is but one phase of the current activity of observing the world around us. Things near and present we observe directly with our eyes. This observation is incessantly going on during all our waking hours. But when we would view things of yesterday, last year or the long distant past, we must employ indirect observation. Newspapers, magazines and books are windows, so to speak, revealing to us the world of reality, near and far, present and past, enabling us to view persons, things and activities over the entire earth. Direct observation should be constantly extending and deepening our views, and, as it lays the foundations, reading should be giving further width, depth and volume to observation.

This activity of observation, both direct and through reading, is a continuous affair which begins early in life and continues for twelve to eighteen hours each day during our entire existence. It may be carried on upon a low, unfruitful or barren level. On the other hand, it may be elevated, diversified, wholesome and fruitful. It is the business of education to take this current faculty of observation in hand and to guide it during childhood and youth.

The reading at which we should aim is current reading. We do not mean reading merely of current affairs. Reading should be continually looking backward and forward to things long past and to things in the future. But the looking can be done only in the present. The reading, there-

fore, of the children with whom we are concerned is the reading that is going on to-day and to-morrow, this week and next week. We can aim at that with considerable exactness and can help the children to find the best forms of literature. We cannot, however, with any certainty know how their tastes are going to run twenty or thirty years hence. And if we knew, we could not now give them practice in that future reading. The school should prepare them for the life that is being lived. Twelve years of high grade reading will develop a momentum that will carry children forward upon a high level through life.

Some of this reading will be done in school. Most of it, probably, should be done at home. All of it constitutes the reading curriculum. The school portion is preparatory for the portion done away from the school. A continuous doing is the end. And this same continuous doing is the educative process. End and process are one.

There is no need to illustrate further. Every phase of education exhibits the same factors and relationships.

Apprentice Method of Training Advocated

There is little similarity between this activity curriculum and that which has been current for a generation or so, particularly in the grammar grades, the high school and the college of so-called liberal arts. It must be noted, however, that the best type of professional school has always employed the plan described. The best method of training a physician, for example, has been to give certain preliminary training within the medical school, and then to give him his fundamental training in the actual care of the sick. Without the fundamental training, he does not become proficient. And this plan of preliminary preparation followed by actual practice is what we approve as the best method of training a teacher, a plumber, a farmer, a newspaper man, a salesman or any other worker.

Our present professional predicament has resulted from failure to recognize the many fields of human endeavor. Had we recognized the fields of action in which individuals should be made proficient, then undoubtedly we should long ago have shaped the curriculum to that end. In a few instances this has been done, as, for example, in writing, spelling, the mechanics of reading, computation and the reading of maps. In other words, literacy has been recognized as involving proficiency in certain activities. And we have had no trouble in making individuals reasonably proficient, each according to his ability, in the performance of these activities. But beyond the primary grades, especially through high school

and junior college, there appears to have been relative obliviousness of the world as a place of action. This is the source of most of our curriculum troubles.

The thing toward which we are moving, therefore, is not new. It is simply to do for all of the fields of human action what we have long been doing for those that were actually recognized. Our first task is properly to recognize them.

Can the curriculum be transformed in the manner here suggested? A reply is indicated by what is going on. The transformation is actually being made, even though the process is slow. The kindergarten and primary grades have already in many cases developed the desirable program. The departments of home economics for girls and home mechanics for boys are looking toward the activities of human living, and are moving toward the type of program involving a preliminary program at the school and a fundamental program at home. Reading is becoming, more and more diversified and much of it is done at home. Citizenship training is increasingly becoming current observation, direct and indirect, of the activities carried on by the social agencies of the community, and practical cooperation with these agencies. And so it goes throughout the entire program. In every department we are more and more clearly recognizing community functioning and we are shaping training to promote that community functioning. When a superintendent points out improvements in the work going on in his school system, he is almost certain to point to movements that indicate greater recognition of life's activities.

The School Is Changing

The goals of progress are well indicated in the research bulletin of the National Education Association, "Keeping Pace With the Advancing Curriculum." On the first page appear these sentences:

"The twentieth century has given us a new conception as to the function of the public school. . . . The period of school attendance is not merely a preparation for future life—it is a section of life lived under the guidance of intelligent teachers. . . . The school is changing from a formal institution dealing out a few pellets of knowledge which it is hoped may be used in the future, to one that offers an opportunity to practice life."

Note the phrases, "section of life lived" and "opportunity to practice life." In these phrases one gets the whole point of view of the new and improved curriculum now being worked out with such great difficulty and labor.

Securing Efficient Janitorial Service

Hamtramck schools adopt objective means for employing custodians, the system being based on a series of tests leading to the survival of the fittest

BY PHILIP LOVEJOY, ASSISTANT SUPERINTENDENT, HAMTRAMCK PUBLIC SCHOOLS, HAMTRAMCK, MICH.

THE annual report of Police Commissioner William P. Rutledge, Detroit, shows that during the past year there were 6,497 applicants for appointment to the police force of that big city. Of these, 5,480 were rejected by the medical department as being physically unfit. Of the 1,017 applicants who passed the physical examination, 384 were rejected upon investigation or withdrew their applications. Of those remaining who attended the training school, 16 were dropped before the completion of the course, 182 were being investigated at the time the report was being prepared and but 535 were assigned to the force out of the original 6,497.

This goes to show the care that Detroit exercises in selecting its guardians of the law. Surely the method is correct.

Can a school system do much less in selecting its custodians, the men who are to be in charge of millions of dollars worth of property and in charge of what is far more precious, the general physical and moral welfare of thousands of children? The Hamtramck Board of Education, Hamtramck, Mich., holds that too much care cannot be exercised in this branch of work. Teachers are selected only after being subjected to rigorous tests. Surely, it is held, custodians should be selected with the same care. A definite technique, an outline of which follows, has therefore been set up to insure the best results.

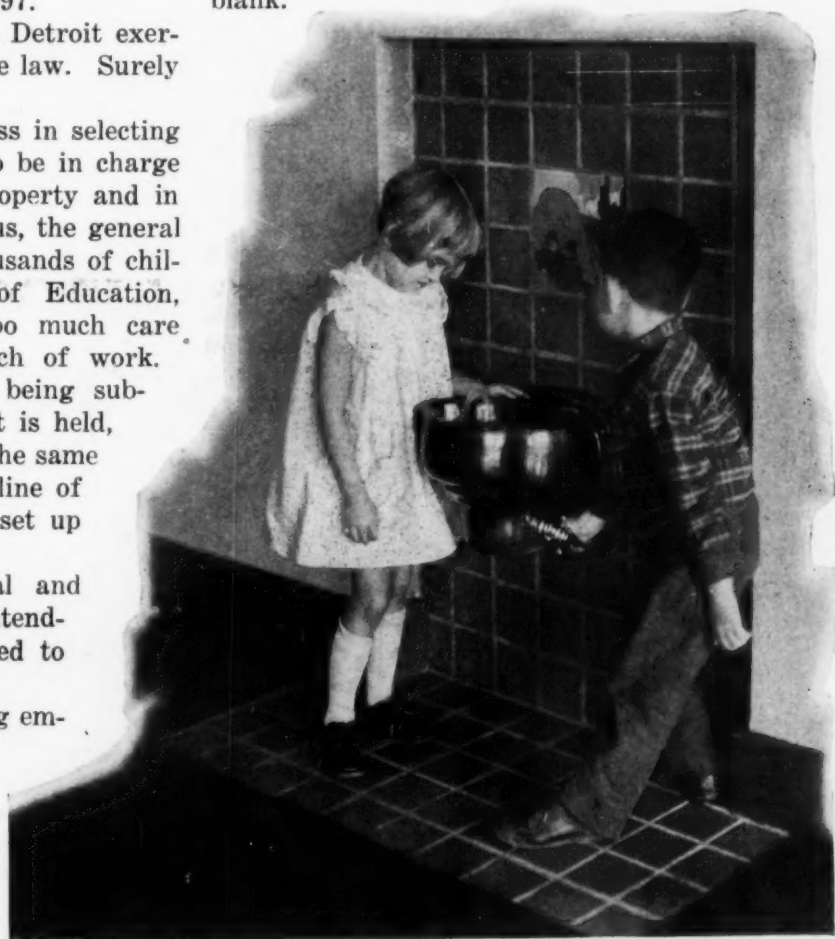
All applicants make a personal and written application to the superintendent. The applicant is then referred to the maintenance engineer.

Page one and two of the operating employee's application is then filled out by the maintenance engineer and the application is sent to the personnel division.

Written references are then requested from persons whose names have been given as references. Arrangements are then

made for the physical examination. The director of the medical department of the Hamtramck public schools makes the physical examination and reports his findings, together with recommendations, to the personnel division. This is filed on page five of the application.

After this examination the applicant is referred to the director of the psychological clinic for examination in respect to mentality, reading and writing, and is given oral tests. Reports of these examinations, together with recommendations, are sent in writing to the personnel division. These are filed on page four of the application blank.



What custodian would not take personal pride in caring for the bubble fountains in an attractive kindergarten like this?

DETROIT NEWS

A study is then made of the letters of reference. This is done by the chief engineer and the results are appended to page three of the application.

Upon the basis of the foregoing data the applicant is either eliminated or placed upon the eligible list.

A passport picture or unmounted photographic print, $2\frac{1}{4}$ by $3\frac{1}{2}$ inches in size, is required of all applicants who are placed on the eligible list. This picture is mounted in the proper place on sheet one of the application blank.

When need arises for operating employees, a selection is made from this eligible list and assignment is made to the school requiring the service, for a probationary period of six months. The chief engineer is responsible for the proper orientation of the operating employee during his probationary period.

Periodic appraisal is made monthly by the principal of the school, the building chief custodian and the maintenance engineer. The results of these appraisals are entered on the operating employee's application, on page seven.

In case of vacancies promotions are made within the system whenever possible. All such promotions are based on objective evidence, of which a record has been entered on the eight-page operating employee's application.

This entire system was organized shortly after the adoption of the Hamtramck public-school code and all custodians then on duty were given these tests, as were all applicants for positions.

The results of these tests are rather interesting.

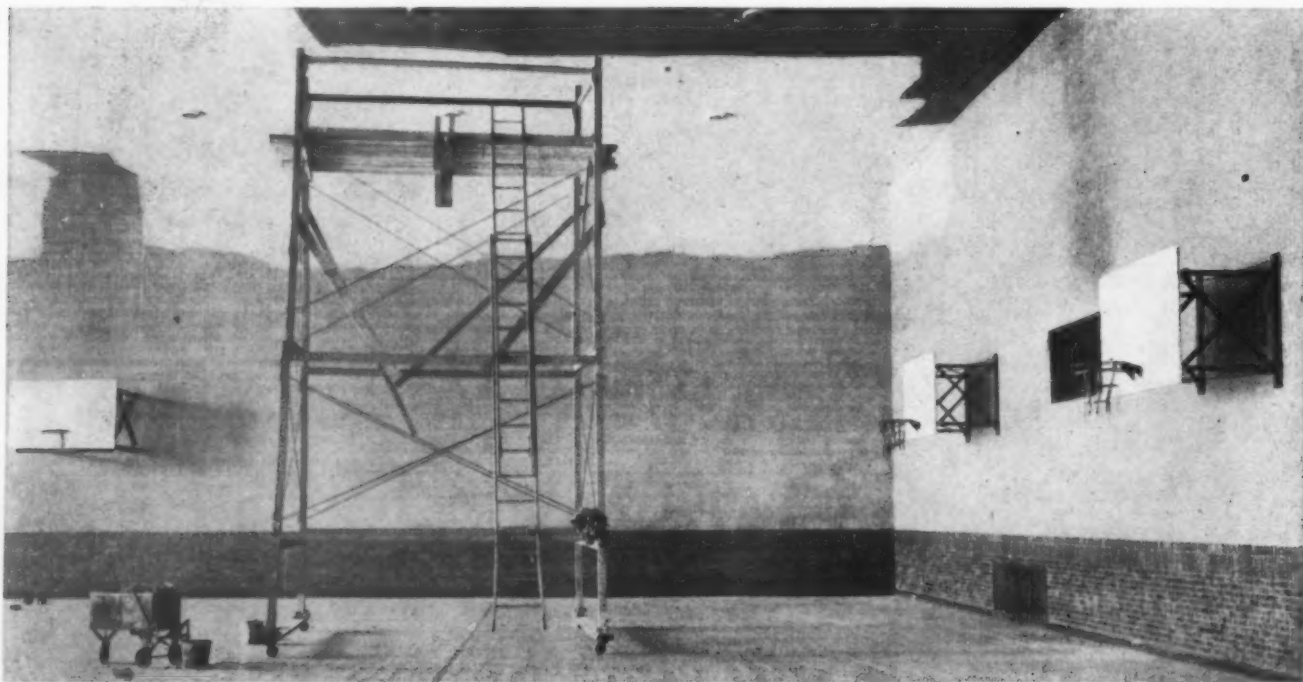
The intelligence tests given were of the performance or nonlanguage type. Those used were the Ferguson form boards, the Kohs block design and the Porteus maze test.

Twenty-nine janitors in service and twenty-one applicants for positions took the tests at this particular time. A splendid spirit of cooperation was shown by those who took the tests. The general attitude of those in service was perhaps best expressed by the Welshman who said, "I don't like the h'idear of taking this test. I have been in service for seven years. They ought to know by this time what I can do." After which expression he buckled down to the tests and stood in the upper quartile.

The results on the intelligence tests were as follows:

Median I Q	Janitors	Applicants
Ferguson	89.2	81.3
Kohs	85.5	80.6
Porteus	82.6	81.5
Median M A		
Ferguson	14-3	13-0
Kohs	13-8	12-11
Porteus	13-3	13-0
Range of I Q's		
Ferguson	60-130	50-1116
Kohs	60-115	30-108
Porteus	50-100	45-90

In analyzing these results three comparisons suggest themselves. The first is the difference between the median I Q of the janitors in service



The maintenance department designed the movable scaffold and employed two boys to wash the boys' gymnasium during the summer.

NOTED



Custodians are trained to operate the paint spray machines. Week-ends are thereby profitably utilized.

and that of the applicants. The second is the great range of I Q's of both groups and the third is the difference in the median I Q's on the three different performance tests.

In finding the I Q's, the chronological age limit of sixteen years was used in all cases. The I Q is therefore as significant in this experiment as the mental age level.

It was gratifying to the examiner to find that the median I Q's of the janitors in service was higher in all cases than that of the applicants. This may have resulted from the self-assurance of those on the job who knew that their work was satisfactory and that the results of the tests were in no ways to affect them. The applicants for positions, on the other hand, were without jobs and more or less "down and out."

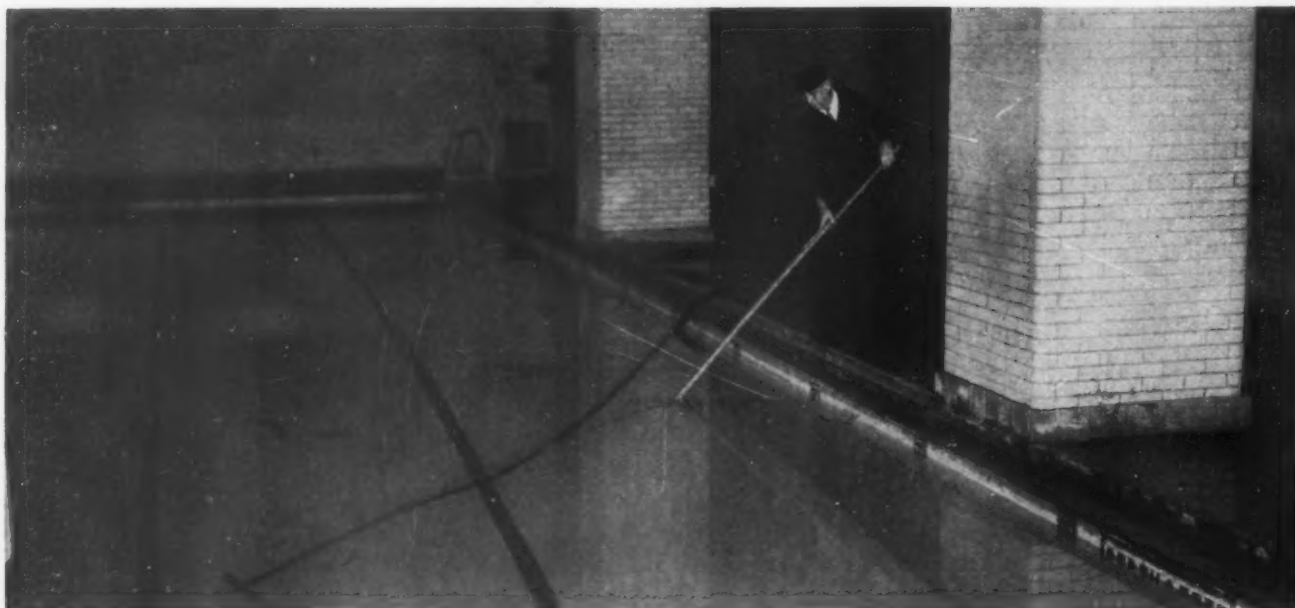
The range of I Q's in both groups does not show as much variability as the extreme numbers indicate. There were one or two exceptional cases at the extremes, with most cases near the median.

The one janitor who had an I Q of 130 on the Ferguson also had an I Q of 50 on the Porteus—the two extremes. A possible interpretation of these results would mean that this man had high ability in manual skill but a very temperamental disposition.

It is generally conceded by psychometrists that form boards, such as the Ferguson, test a special ability. Perception of form and manual skill seem to be governing factors, the latter assuming importance in later years.

The other two tests are regarded as giving a serviceable idea of the individual's intelligence status. Kohs states, "If intelligence involves the mental operations—analyzing, combining, deliberating, comparing, completing, discriminating, judging, criticizing and deciding—then the block design tests may with justice be said to demand the functioning of intelligence and to that extent they are a measure of mental capacity."

The difference on the Kohs block design tests



Using the vacuum cleaner to remove sediment from the bottom of the swimming tank is a saving in both time and money.

perhaps indicates that the janitors possess a higher degree of the analytic synthetic ability which Kohs calls intelligence.

The reading tests were worked out in the psychological clinic. They were composed of six paragraphs, each dealing with a different duty of the janitor, and outlined standards as set up in the Hamtramck system. They were similar to the Detroit reading test and had two questions to be marked in each paragraph.

This is carefully done with most gratifying results because the men recognize the need for greater care of the buildings. The results are shown in the accompanying table.

In the oral test the first fifteen applicants were given a revision of page one of the Army Alpha, but this was not satisfactory because it was apparently too difficult, as the men were not accustomed to working with a pencil and were not being tested in the ability to take orders, to remember them and to execute them. This form

was discarded and the oral test was made up after the Binet commission test.

The personality ratings were made through observation of the subject during the test and through analysis of the test results. Observation was guided by Marstons' personality rating scale and other data accumulated on the subject. These may have been slightly colored by a cursory relationship with the subject.

The board of education has on its staff a medical examiner and to him were sent for physical examination all the janitors already in the system, as well as the applicants. The reports of nineteen of the applicants show that eight were marked satisfactory while eleven were rejected. Of those rejected, six had varicose veins, one had a heart lesion and a slight thyroid, one had hernia, two had fallen arches and one was not complete in his examination.

Of the janitors on the job all were passed by the examiner, as the weeding out process had

Median number right of 12 attempts	9.2	7.5
Number not reading English.	5 or 17%	3 or 14%
Number requiring ten minutes	16 or 55%	12 or 57%
Number requiring less than ten minutes	8 or 28%	6 or 29%
Number for whom test was too simple	3	1
Copying tests, 16 numbers...		
Median time required	1 hour 5 minutes	1 hour 7 minutes
Range of time required.....	24 minutes to 4 hours	38 minutes to 3 hours
Number requiring less than 1 hour	11	5

Table showing results of six reading tests, each dealing with a different duty of the janitor.

been most thorough and had brought about the elimination of all the applicants except those who were best fitted for the positions.

The total results of this first group were that but four men were placed on the approved reserve list from which men would be selected as vacancies arose. Thus the board of education has prevented its positions from becoming repositories for old men. It does not become a pension bureau. The children are assured of being well cared for as far as the physical property of the board is concerned. Character has been considered and the possibility of moral lapses is greatly reduced.

What the Rejected Say

The attitude of some of the rejected men is interesting. One in particular who could not pass the examination of one of the commercial factories in the metropolitan area made this plea: "What is a fellow like me going to do? Surely the board of education should employ me. It spends tax money and I pay taxes. The factories won't take me and I have to have a job. What am I going to do? The board has no right to reject me."

The Hamtramck custodians are exactly what

the name implies, they are more than broom pushers, they are caretakers, and primarily they are there to care for the welfare of the thousands of children who daily are intrusted to the personnel employed by the board of education.

Political Factor Eliminated

Testing such as this places all applicants upon an objective basis and determines whether or not they have the qualities that are demanded of a building custodian. The political element has been discarded as well as the subjective element that so often enters into the employment of such persons. These tests, with character ratings and the physical examination, serve to show just what type of men the board has as possibilities. The hiring is therefore done with eyes open. Once the men are on the job it becomes the duty of the maintenance engineer to orient them and to see that they are properly instructed.

Principal of Building Supervises Work

Each man is under the jurisdiction of the principal of the building in which he works. The matter of time utilization, instruction and appraisal will be the subject of another article in a forthcoming issue of *The NATION'S SCHOOLS*.



Here the engineer-janitor is shown using the vacuum cleaner to sweep the linoleum on the floor of a classroom.

Public-School Administration and Supervision

This discussion of twelve reference books was prepared in response to a request from a director of university extension work and should be of value to superintendents, principals and supervisors

BY FRED C. AYER, PROFESSOR OF EDUCATIONAL ADMINISTRATION, UNIVERSITY OF TEXAS

THE books here discussed have been chosen for consideration partly on the basis of the favorable opinion progressive principals, supervisors and superintendents have expressed toward them, partly on the basis of my personal experience with them as texts and classroom references and partly because as a group they cover the field of public-school administration and supervision with a minimum of overlapping. Needless to say, many books of decided merit are not included in this list. No books on special phases of administration other than the supervision of instruction are included.

1. Almack, John C. and Bursch, J. F., *Administration of Village and Consolidated Schools*. Houghton Mifflin Company, 1925. 466 pp.

How to meet the many administrative problems peculiar to consolidated schools is the chief theme of an excellent treatment of rural-school administration in this text. Almack and Bursch present many plans that are adaptable in city as well as in rural schools, but their text is particularly valuable in connection with rural-school problems, such as transportation, housing the school population and planning the social program. Administrative officers in charge of village and consolidated schools should consult the wealth of practical information to be found in this volume.

2. Anderson, C. J., Barr, A. S. and Bush, M. G., *Visiting the Teacher at Work*. D. Appleton and Company, 1925. 382 pp.

The authors of this text offer practical guidance in the difficult and important problems attached to classroom visitation. They have supplied supervising officers with an excellent manual that goes right to the bottom of the matter at hand. Actual cases are presented and the treatment is complete and detailed. Not only are the items of procedure in classroom visitation handled in objective detail, but there are splendid analyses and illustrations of preteaching and follow-up confer-

ences, and a general discussion of related guiding principles of supervision. This book has been reported to me many times by different principals and supervisors as "just the book I have been looking for." It supplies information at the point where the great majority of classroom supervisors need it most, and is a welcome addition to the literature of supervision.

3. Ayer, Fred C. and Barr, A. S., *The Organization of Supervision*. D. Appleton and Company, 1928. 397 pp.

This book considers the administrative aspects of supervision, an important phase of supervision too frequently neglected both in educational literature and practice. Practical administrators will find here many illustrations and descriptions of effective supervisory machinery now in actual operation in various large and small cities. The supervisory duties and responsibilities of administrative officers are considered in detail. A comprehensive analysis is made of supervisory activities, and numerous plans are suggested by virtue of which administrative officers may bring about the improvement of instruction.

4. Davis, C. O., *Junior High-School Education*. World Book Company, 1924. 451 pp.

Here is a book which, particularly from the sixth chapter on, contains a series of informative and practical chapters relating to the administration of junior high schools. Nine chapters are devoted to a discriminating discussion of the curriculum and its various subjects. These are followed by instructive chapters on typical programs, general administration, collateral activities, buildings and typical junior high-school standards. This book fits in well with the text by Touton and Struthers described below. Together, they cover this field effectively.

5. Foster, Herbert H., *High-School Administration*. The Century Company, 1923. 665 pp.

Recent books on high-school education are, on

the whole, more given to statistical description and theoretical analysis than to immediately practical administrative considerations. Among those that lean somewhat more toward technical practices is Foster's recently published "High-School Administration." The most helpful portions are the second chapter, "Fundamental Principles of Administration," Part III, (four chapters) on "The Pupils and Their Needs," and Part VI, (four chapters) on "Management and Relations." A comprehensive bibliography appears at the end.

6. Barr, A. S. and Burton, W. H., *The Supervision of Instruction*. D. Appleton and Company, 1926. 626 pp.

This is the best general book at present covering the field of instructional supervision. It takes up in an effective manner the various practical aspects of supervision, such as studying the work of the teachers, visitation and conferences, the proper handling of subject matter and instructional materials and the utilization of tests and measurements. The chapters on general devices for the improvement of teachers in service and on evaluating the efficiency of teachers are filled with excellent suggestions that may be readily applied by supervising officers. As a whole, the book by Barr and Burton is one of the most useful books in the field of supervision that have yet appeared.

7. Gist, A. S., *The Administration of an Elementary School*. Charles Scribner's Sons, 1928. 305 pp.

This book, based largely on the first-hand experience of an exceptionally competent and progressive elementary-school principal, runs almost entirely to practical considerations. It treats in detail the many problems that confront the elementary-school principal, from the use of the telephone and raising funds to the use of educational experts and the operation of a platoon school. Special emphasis is placed on devices and types of organization that economize the principal's time. Emphasis is also given to plans for the development of favorable school and community spirit. Gist has made a distinctly helpful contribution to the art of running an elementary school.

8. Lindsay, E. E., *Problems in School Administration*. The Macmillan Company, 1928. 544 pp.

In this volume Lindsay gives public-school administrators a genuine contribution toward the solution of the many financial and business problems that arise during the annual public-school

program. He does it well. Each chapter is introduced by a clear-cut and interesting discussion of the topic involved and closes with a set of illustrative problems. Some of the outstanding chapters of the twelve included are: Chapter V, "Business Management;" Chapter VI, "Salaries;" Chapter VII, "Indebtedness and Bonds," and Chapter VIII, "Buildings." There are other pointedly concrete chapters which treat the financial aspects of school accounts and budgets, publicity, consolidation and the board of education. The lists of references are excellent. The author sticks to the financial implications of the various topics but keeps their educational bearings constantly in the foreground. This book is destined to stimulate the interest and add to the efficiency of many a school administrator.

9. Lewis, E. E., *Personnel Problems of the Teaching Staff*. The Century Company, 1925. 457 pp.

This is another text that has received widespread favorable mention. The author has had extensive experience both as a university instructor and as a superintendent of schools. He has succeeded in making his treatment of personnel problems distinctly practical. He covers the entire field of selecting, training, taking care of and dismissing teachers. The teaching load, professional improvement, salary schedules, disciplinary problems, tenure and teachers' welfare, all come in for extended treatment. The book, as the author states, does not profess to be a complete treatise on personnel management. It does, however, give public-school administrators a systematic and practically helpful treatment of an important field of administrative activity far too little understood and unduly neglected.

10. Johnson, Franklin W., *The Administration and Supervision of the High-School*. Ginn and Company, 1925. 402 pp.

This is a well known text on the administration of high schools, which has received much favorable comment from both instructors and students, because of its practical value. While a considerable number of its chapters include theoretical and discursive materials, on the whole it points directly at the manipulation of the school program and presents a wide array of successful administrative plans and devices. This tendency reaches its height in the three chapters dealing with blank forms and records, disciplinary control, and extraclassroom activities. Almost all of the chapters, however, are practical in character. There are, for example, excellent treatments of such definite problems as the marking system and

the high-school library. Four valuable concluding chapters are devoted to problems of high-school supervision. This book well deserves widespread reading.

11. Cubberley, E. P., *The Principal and His School*. Houghton Mifflin Company, 1923. 571 pp.

Professor Cubberley presents a well organized series of valuable plans and administrative devices of immediate value to elementary-school principals. In my opinion there are few textbooks in the field of educational administration that contain so great a proportion of immediately practical material as "The Principal and His School." This book deals effectively with practically all aspects of elementary-school administration, but is particularly strong on the subject of the technique of every-day administrative and supervisory practices.

12. Touton, F. C. and Struthers, Alice Ball, *Junior High-School Procedure*. Ginn and Company, 1926. 595 pp.

This book lives up to its title. Its chapters are devoted to the every-day plans, devices and routine of junior high-school procedure. Its chief theme is what to do, rather than why to do it. The authors have gathered an impressive amount of material bearing upon the running of a junior high school, and have organized it systematically for ready utilization on the part of high-school administrators and teachers. Practically all of the customary administrative topics are treated fully. There are some particularly superior chapters on the management of study helps, the attendance system and exhibits of school work. Progressive junior high-school officers should by all means study Touton and Struthers.

Making the Most of the Child as He Is

The teaching of health habits to children must be freed from "a sort of standardization which applies to dead, but not to living, things," according to Dr. James Frederick Rogers, chief of the division of school hygiene and physical education, U. S. Bureau of Education, in a review of the school health work of the country.

"Prosecution of our attack by known means on ill health and defectiveness would be facilitated if the relationship between physical condition and mental activity could be made more evident," Dr. Rogers points out. "This relationship is apparently not evident except at the extremes of defectiveness.

"In classroom procedures we have unfortunately been guilty of classifying and labeling the child in ways that were unfair and discouraging, and we have even set up for the guidance of parents a model to be sought that is both impossible and disheartening. Such a child, even if correctly pictured, cannot possibly be produced to order, much less modified to fit such requirements after his birth. We are sometimes too dreadfully scientific and not sufficiently human. We are not dealing with a paragon, and it is our business to make the most of the child as we have him.

"Liberation of the child as far as possible from the trammels that interfere with the full exercise of all his faculties for the enjoyment and work of life thus affording him the freedom of doing what he desires to do, and of getting where he wishes to go, within the limits imposed by that powerful tyrant, heredity, is the aim of those who battle for better child health."

Planning of New School Is an Engineering Problem

School building planning is distinctly an engineering problem. The scientific survey of a city is conducted from an engineering standpoint. How many school buildings are there already? Are these located in the right places? Some cities have been found to have enough schools but they were all in the wrong locations. How many are there likely to be in five or ten or fifteen years?

These are all questions to be considered when a building program appears necessary, Alice Barrows, building specialist with the U. S. Bureau of Education, emphasizes in an interview published by the *Forecast*. Other questions of importance are:

What existing buildings should be scrapped? Which should be remodeled? Where should new buildings be established—not only with regard to future population but also with regard to existing child welfare agencies, public parks, museums and libraries?

The practical problem before the school building engineer is to relieve congestion and to provide cities with up-to-date buildings. Miss Barrows does not recommend any particular type of architecture—since it is not so much a question of the kind of building as it is a question of the kind of activities it must house. Those who plan modern school buildings must know modern educational philosophy and its requirements.

That One Talent*

The problem of discovering, conserving and developing mental endowment is one that concerns every person who has an intelligent interest in social and economic welfare

BY H. T. MANUEL, PROFESSOR OF EDUCATIONAL PSYCHOLOGY, UNIVERSITY OF TEXAS, AND ALINE RATHER, DIRECTOR OF ART EDUCATION, SAN ANTONIO PUBLIC SCHOOLS

IT IS generally held that human abilities are distributed at least approximately according to the normal curve. When this curve is drawn to represent the distribution of an ability, different degrees of the ability under consideration are thought of as distributed along the base line from low to high. Then the surface under the curve represents the number of individuals who have the several abilities indicated below. The curve is of a bell shape with the highest point above the segment of the base which represents the probable average ability of the population.

In accordance with this hypothesis the accompanying figure represents the probable distribution of ability in art among the general population. It will be observed that the abilities vary from each other by small gradations, and that there is no point at which we may with assurance draw a line and say that those whose abilities lie to the right are talented while those whose abilities lie to the left are devoid of talent; it is rather a matter of degree. Any attempted division of a group of persons into the talented and the untalented is as impossible as trying to classify everyone as either tall or short.

It requires only a

little analysis to show that from the standpoint of the product, talent in visual art may mean a number of rather different things. Any visual situation that is complex has the power of a greater or a less esthetic appeal. Presumably that person has the greater talent who, in comparison with others of similar training, is more responsive to beauty, is better able to judge the esthetic qualities of a situation, is more capable of producing beautiful products and is superior in inventing beautiful objects and compositions. But the variety of visual situations that present an

esthetic appeal is almost infinite — lines, surfaces, solids, light and shade, colors, pictures, designs, statuary, buildings, bridges, furniture, utensils, ornaments, fields, plants — in short, almost anything that can be seen.

Assuming for the moment that the capacities for emotional response, esthetic judgment, neuromuscular skill and artistic inventiveness may vary more or less independently of each other, and that each may vary also in the many different situations in which it may be exercised, one gets a vivid idea of the wide differences that theoretically may exist in the aptitude known as talent in art.



*This is the third of a series of articles dealing with special ability in visual art.

For example, so far as *a priori* analysis reveals, a child may have unusual capacity for responding emotionally to a beautiful object but relatively less ability to judge its beauty, to produce it from a pattern or to devise another equally beautiful. Or, theoretically one may be rather cold in emotional response, have an excellent esthetic judgment, possess little neuromuscular ability and show only moderate inventiveness. By the same method of analysis it appears possible for a child to have unusual skill in the technique of production and yet little ability to appreciate or invent a beautiful object or composition. It may even be true that a person would rank high in appreciating beauty of lines and low in color, or high in the technique of using pencil and crayon and low in painting or carving. The theoretically possible combinations of degrees of ability are almost innumerable.

The above analysis may be carried farther. Meier has suggested that talent in art probably includes such particular items as the following¹: "...color sense and color memory; sense of balance; stability and symmetry; sense of unity and harmony; sense of proportion; sense of rhythm; sense of perspective; range of imagery; interest in detail; volitional perseverance; feeling (affective rapport) for the medium; various psychophysical capacities, as, eye-hand coordination, accuracy of movement, spatial perception, inhibitory control and steadiness; inventive ability, as in imaginal resourcefulness and fertility of suggestion." That he regards some of these items as at least partially independent variables may be assumed from his statement: "It is to be noted, however, that not all such factors are universally significant. Investigations have established that certain ones are not essential to success, since talent is found to exist in high degree in persons both with and without them."

The Value of Originality

Diversity of accomplishment is well recognized by art critics, as the following quotation illustrates²:

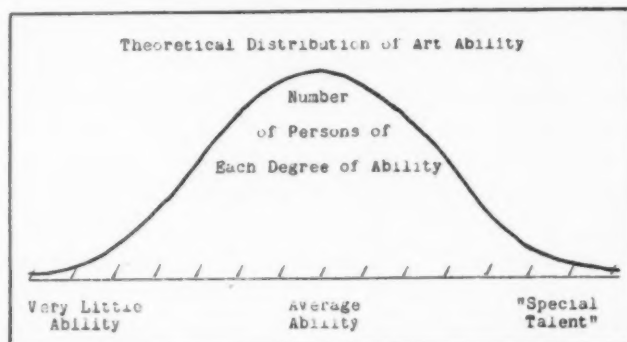
"He (Winslow Homer) was hardly a draughtsman, at least so far as the drawing of the human figure is concerned; he was rarely a colorist, in the full sense, and was often content with little more than black and white; he was still less an accomplished craftsman. What he had was an extraordinary vigor and originality of observation, which provided the substance of his works, and an equally original and vigorous design which gave them their form."

Again:

"Anyone who has ever had any connection with

a school of art must know that it is only a small proportion of the students who attain any tolerable proficiency in drawing—who learn to get an approximation of the right sizes and shapes of things. To get these sizes and shapes with anything like real accuracy and delicacy requires so rare an organization that the possession of that alone is almost a passport to immortality."

The relationship of human abilities to each other is a problem toward which a great deal of work has been directed, but our knowledge regarding this matter is still incomplete. Spearman, an English investigator, has approached the



At what point on the base line should you erect a perpendicular line to show the lower limit of "talent"?

problem of the interrelation of abilities from the statistical point of view. In his "Abilities of Man" he advances the hypothesis that in measurements of ability throughout the field of "cognitive activity" there are two constituent factors—a general factor and a specific factor. The general factor, he thinks, is constant for a given individual and enters into the measurement of abilities of all kinds. It is similar to that which many think of as general intelligence. The specific factor pertains to a given activity. If, for example, we consider the difference in scores of two individuals on a drawing test, and one is higher than the other, the superiority may lie either in the general factor or in the specific factor or in both. If the drawing test depends largely on the general factor, then to possess it gives one an advantage in drawing. If on the other hand, the ability to draw depends largely on the specific factor, it is not affected greatly by superiority in the general factor. The general factor, he thinks, may represent something analogous to an energy "capable of being transferred from one mental operation to another." The specific factor, similarly, would correspond to the engine or engines through which this general fund of energy works; on the anatomical side, the specific factor would represent localized structures.

In interpreting data such as Spearman presents, we must be careful to distinguish between measurable results and the mechanisms by which



those results are reached. While in many cases it may be statistically possible to account for the correlations that are found, on the hypothesis that each measured result is a summation of two abilities, the actual operating mechanisms may be much more complex. Investigations have shown that apparently the same external result may be produced in a variety of ways. Persons may draw the same thing, for example, using different sets of muscles, and if introspection may be trusted, different mental processes, such as various types of imagery. But even if Spearman's explanation were correct, we should still have before us the problem of determining the various specific factors in artistic ability.

Diagnosing Aptitude for Art

Possibly it will serve our purpose best to approach the problem by the statement that an individual's mechanism of mental and physical action is made up of a large number of working parts partially dependent on each other (and on common factors, such as food supply) and partially independent. In carrying forward different activities these parts cooperate in various patterns. We may therefore, expect an individual to show different degrees of excellence in abilities

that involve different neuromuscular patterns.

In the diagnosis of an individual's aptitude for art, we must remember two generalizations already laid down: (1) that art activities are so many and diverse that talent in art denotes in different individuals capacities for doing rather different things; (2) that the mental and physical machinery for doing even apparently the same thing may vary in different individuals. For educational and vocational guidance it is necessary to think of talents rather than of a single simple trait varying only in degree in different individuals.

When an individual performs a given act, it is of course evidence that he has the ability to do it. But for purposes of prognosis we need to know in advance of the act whether a child has the ability to perform it, or can with reasonable effort develop this ability. When a painter has produced a masterpiece, obviously he has the ability to do it. But the educational problem is that of predicting whether a given child can profitably be set to work acquiring the technique of a painter in the assurance that his efforts will not be in vain. Or to speak of talent of a different kind, we need to know whether a given child after a reasonable period of training will find satisfaction and social

usefulness in the making (not inventing) of artistic products, the manufacture of which requires unusual neuromuscular skill.

Prediction rests upon inference. When we give a person a task and find that he does it in a superior manner, we infer that he can do a similar one in a superior manner. Experience teaches us, however, that the assurance with which we can predict from one act a person's ability for another varies with the similarity of the two. The probability is almost certainty that one who has shown the ability to carry a 150-pound trunk up three flights of stairs can do the same thing for an equal weight of ice. But we are less sure that if a man can carry 150 pounds on his shoulders he can carry the same weight on his head.

The Experimental Method

In the field of art we need diagnostic procedures that will enable us to predict success in different art callings. At the same time, we must remember that our predictions express probabilities of various degrees of reliability, always less than certainty. The prophecy is made more difficult by the fact that we are dealing with immature persons who are at various stages in their learning. The best we can do is to try a child on various tasks in which success has been shown, by analysis or by correlational studies, to be associated with success in a particular phase of art. If in comparison with others of similar training or opportunity he stands high, we may infer that so far as these evidences are concerned his chances are good. The nearer we can approximate the activity (or critical elements of it) for which we are seeking a prediction, and the greater the number of items pointing in the same direction, the more reliable will be our estimate.

Measuring Esthetic Judgment

Various investigators have studied the interrelationship of abilities presumably associated with talent in art,³ but further research is urgently needed. One of the most interesting recent studies is that of Meier, who noting the variability of the constitution of artistic talent and the difficulty of certain methods of measurement, is developing a measure of esthetic judgment which, together with the ability to arrange and rearrange, he thinks is the most significant element of talent in art.

The Lewerenz "Tests in Fundamental Abilities of Visual Art"⁴ includes nine subtests—recognition of proportion, originality of line drawing, observation of light and shade, knowledge of subject matter vocabulary, visual memory of proportion, analysis of problems in cylindrical, parallel and

angular perspective and recognition of color. Norms are given.

As this manuscript was being prepared a copy of a preliminary edition of a new "Art Ability Test" by Pressey and Knauber was kindly furnished by Mrs. L. W. Pressey of the Ohio State University. This also is an analytic test.

Among the scales for measuring the quality of drawings are the Thorndike Drawing Scale⁵ and the Kline-Carey Measuring Scale for Free-hand Drawing⁶.

Relation of Mentality to Artistic Talent

A theoretical and practical question of considerable importance is the relation of general mental ability to talent in art. It seems from previous studies that the correlation between some phases of drawing ability and the ability to succeed on an intelligence test is low. In other words, a certain ability to draw well, more or less as a copyist, will frequently be found among persons of relatively low general intelligence. Ayer reports that "ability in representative drawing is not correlated with achievement in school subjects when it is isolated from the other factors of school drawing." Karwoski and Christensen report correlations of only .299 and .264 between their test of art appreciation and the Thurstone Psychological Test No. 4⁷.

Lewerenz's View

Lewerenz similarly submits correlations ranging from .009 to .275 between intelligence and the several subtests of his "Tests in Fundamental Abilities of Visual Art."⁸ On the other hand, it seems clear that success in the higher levels of art is accompanied by a fair degree of general ability. Meier, as we have seen, emphasizes esthetic judgment as a crucial factor in artistic talent. It will be recalled, too, that there are many different techniques in different forms of visual art. Lewerenz offers the following summary (p. 490):

"It is probably true that anyone who succeeds exceptionally well in art will also rank rather high on an intelligence test. However, a high intelligence test score does not bring necessarily a corresponding ability in art. The fact is that there are a great number of people whose intelligence quotients range from eighty-five up, who have equal chances for achieving moderate success in art work. It may be said, therefore, that predicting the success of students in an art class on the basis of their intelligence quotients alone would yield results little better than a random guess."

The opinion seems to prevail that conspicuous

success in art requires a high level of general ability and in addition a high endowment of special ability. Nevertheless, it is still an interesting question whether any child who has a superior general nervous organization (as we might infer from a test of general intelligence) has not the capacity for a career in art with as much promise of success as in law, medicine or some other profession. One might even go farther and ask how far the ability to draw represents an innately superior neuromuscular organization and how far it is a matter of interest and effort. These questions should be submitted to experimental attack.

What Part Does Heredity Play?

There is ample reason to believe that heredity supplies the basis for development and sets limits beyond which one may not hope to go. Genetic studies raise a strong presumption that human organisms differ in the first place because of the genes that are transmitted from parents to offspring. It is probable that these differences in individual cases are extreme and often the primary cause of differences in adult life. It is probable, too, that they exist in details of organic structure so that one child is predisposed to achieve in a particular field more than another.

While the constitution of the germ plasm is a large factor in individual development, environmental factors are equally important. Without a favorable physical environment, indeed, there could be no development at all. The practical question is one of determining the influence of various forces upon individual development.

Training Has an Important Place

The part that educative forces may play is frequently underestimated by those who have given major attention to heredity. While Watson's statement that "if you start with a healthy body, the right number of fingers and toes, eyes, and the few elementary movements that are present at birth, you do not need anything else in the way of raw material to make a man, be that man a genius, a cultured gentleman, a rowdy or a thug" seems somewhat extreme and misleading, we need to realize that the possibilities of directing child life and development are very large. It may be in a given case that a lack of ability at a particular time represents a lack of development rather than a genuine lack of capacity for development.

It is evident, then, that training has an important place in the diagnosis of talent. Children need to be exposed to the opportunity for developing ability in various phases of visual art. This is not synonymous, of course, with saying that

they should be given instruction in drawing. It means much more, for as we have seen in the previous discussion, even on the side of technique, drawing is but one phase of ability in art. Teachers should be alert to stimulate the interest and effort of children and then to discover from their performance those who are gifted above their fellows. Naturally, the teacher should be assisted in making a diagnosis by the use of such standard tests and norms of achievement as are available.

At what age may we expect talent in art to be evident? Goodenough has given some attention to this question in connection with her study of drawing as a measure of the intelligence of young children.¹⁰ "It is probable," she says, "that in exceptional instances genuine artistic ability in drawing is shown by children in their early years but these cases appear to be rare." She thinks that "when one considers the number of child musicians who appear in our concert halls each year, the dearth of child artists is rather surprising, and suggests the explanation that artistic ability may be relatively late in its development."

Art Instruction Often Neglected

We are inclined to agree, however, with Dr. Phyllis Blanchard's suggestion that parents as a rule give much more stimulus by way of extra instruction in music than in art. How many concert musicians would be produced by public-school music alone?

In interpreting Goodenough's position it should be remembered that her main interest seems to have been in children of not more than ten or twelve years of age. She seems to have been thinking, too, of outstanding achievement in comparison with adult performance. Certainly, if she means that children do not vary in artistic ability with reference to others of their own age, her position is open to serious question. In an article on "Heredity in Art"¹¹ Guenther reports on the basis of a "study of biography, autobiography and genealogy," that all great artists have as one of their characteristics, "early manifestation of genius—appearing from three to fourteen years of age."

More Research Needed

In the administration of art instruction for gifted children diagnosis is obviously a first step. Any differentiation of educational opportunity on the basis of capacity rests upon the recognition of these differences. This is not an easy problem; we need a great deal of additional research to refine our instruments and our technique of diagnosis. We need to know, also, much more about the occupational objectives for which given abili-

ties are prerequisite. The information already available, however, is considerable, and the intelligent teacher may do much to give educational direction to those who are under his instruction. Until our methods have greater refinement, it will be better to err on the side of offering special opportunity to those whose gifts are only moderate than to miss some whose really exceptional ability is not easily detected. Response to educational treatment is itself a significant factor in diagnosis. Interest and effort are important prerequisites of achievement.

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- ³ See for example: Ayer, F. C., *The Psychology of Drawing*; Maudslayi, H. T., *Talent in Drawing*; Meier, N. C., *Aesthetic Judgment as a Measure of Art Talent*.
- ⁴ Alfred S. Lewerenz. Published by Research Service Co., Los Angeles, 1927.
- ⁵ Bureau of Publications, Teachers College, Columbia University.
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- ⁸ Lewerenz, A. S., *I. Q. and Ability in Art*. *School and Society* 27: 489-490, April 21, 1928.
- ⁹ Watson, J. B., *Psychological Care of Infant and Child*.
- ¹⁰ Goodenough, Florence, *Measurement of Intelligence by Drawings*, pp. 52-53.
- ¹¹ *The School Arts Magazine*, 25: 603-609.

Essentials in Building a Good School System

Twelve essentials of a good school system, as outlined by Julius E. Warren, superintendent, Lakewood Schools, Lakewood, Ohio, at a teachers' meeting preliminary to the opening of the school year are reprinted in the *Ohio Teacher*. They are:

A community demanding good schools.

A nonpartisan board of education, made up of men and women who find justification for every legislative enactment that they make in terms of improved learning conditions for boys and girls.

A professionally minded staff of teachers who look upon their work as a high calling and who give it their undivided loyalty, energy, understanding and human sympathy.

An adequate salary schedule providing for the teacher an opportunity for self-respecting, comfortable living, recreation, study and reasonable personal savings.

A curriculum based on the needs of children in the various periods of their growth, and recognizing the individual child.

A program of adult education and recreation which meets the needs of the community.

A schooling period long enough to meet the needs of the curriculum.

A well cared for school plant providing for present needs and future expansion and furnish-

ing something of beauty as well as cleanliness, sanitation and convenience.

Adequate supplies, textbooks and equipment for carrying out the curriculum.

A democratic school organization that recognizes the rights and contributions of pupil, parent, teacher, business staff, health staff and custodian.

A school budget based on sound business principles, scientifically prepared and efficiently expended.

A tie-up with other educational agencies and organizations of the community.

Diet and Early Dental Attention Important in Mouth Hygiene

That the slogan, "A Clean Tooth Never Decays," has done great harm in preventive dentistry, is the belief of Dr. William R. Davis, director of the bureau of mouth hygiene, Michigan Department of Health.

"This expression is true only for surgical cleanliness," Dr. Davis says, "and surgical cleanliness is impossible so far as we know in the mouth of a live person and not very important in a dead one."

Many teeth that are brushed decay and many teeth that never saw a toothbrush never decay, according to Dr. Davis. No dentist on earth can make badly broken down and aching teeth as good as new. Why broadcast such teaching? Educational material that is not true or is out of focus should not be used no matter how attractive.

Dr. Davis continues: Many school boards and teachers have been led to believe that toothbrush drills and cleaning teeth are the whole thing in a dental health program. Use of the toothbrush is a good habit like taking a bath or washing the face. In certain cases it will help prevent decay. Twice a day, before going to bed and after breakfast is a reasonable frequency to teach. Why teach five times, which is unreasonable? Why teach using gauze on the finger and boric or salt solution daily to wash the mouth of an infant that is correctly fed and in good health, when clinical experience shows that it does more harm than good?

"The two greatest factors in mouth hygiene are diet and early dental attention. It has been proved conclusively that wrong diet promotes decay and correct diet retards decay. If we could have early attention to small defects and correct diet, I believe we could almost wipe tooth troubles off the map even if another toothbrush was never manufactured. This may be rank heresy, but I believe research and clinical evidence are proving it.

What Qualifications Are Demanded of Teachers?

There is no known formula for evaluating a teacher but school officials will benefit from this study based on the results of a questionnaire sent to superintendents of city schools

BY CALVIN O. DAVIS, PROFESSOR OF SECONDARY EDUCATION, UNIVERSITY OF MICHIGAN

WHAT are the qualities that are essential for a teacher? No doubt the question suggests equivocal answers. Much depends upon the character of the position the teacher is to occupy.

A professor in a university may succeed with a personal equipment that would spell failure for a teacher in the lower schools. An instructor in a large urban high school should possibly have many qualities with which the rural school teacher may be unendowed. A teacher of gifted pupils requires qualities different from those demanded of a teacher who is to devote his time and energies to the training of dull and backward boys and girls. There is therefore no fixed standard by which we can arbitrarily judge teachers situated in diverse kinds of teaching positions. Nevertheless an approach to general principles may be made by inquiring what conditions employing agencies—principals, superintendents and boards of education—set up for their guidance in filling vacancies in the ranks of teachers in their schools.

City School Superintendents Questioned

In order to learn the qualifications our public-school officials demand of candidates for teaching positions, I recently sent the following letter to 250 superintendents of city schools distributed over the forty-eight states of the Union:

Dear Sir:

I am desirous of learning just what qualities superintendents and principals emphasize when employing and promoting teachers. May I therefore kindly request from you: (1) a copy of the blank form you use in securing an application from a teacher or a recommendation pertaining to a teacher; (2) a copy of your promotion rating form.

Thanking you very much for your favor, I am,
Very truly yours,

Replies were received from 165 individuals. One hundred forty-eight superintendents sent copies of the personal application blanks used by them.

One hundred twenty-five school systems of the 148 sending sample application forms, employ a somewhat large blank on which fairly extensive and detailed inquiries are made; thirteen of the 148 systems use semi-rigid cards upon which information is recorded; six systems employ a small single-page form; three systems use a form made up especially for each applicant, of the nature of a personal questionnaire, and one city uses what may properly be styled a bulletin, a folder consisting of several pages, in which detailed information respecting the schools is presented and opportunity offered for giving personal reactions thereto. Seven officials replying to the inquiry failed to send sample forms or otherwise to indicate their practices, while five superintendents wrote that it was not their practice to use forms of any sort.

Application Forms Vary Little

So far as could be determined, the application blanks for each given school system were the same whether used to secure information from high-school teachers or elementary-school teachers, although footnotes occasionally stated that applicants might omit questions not pertinent to their interests. Most blanks, however, provided opportunity for the candidate to indicate the type of work or the kind of position he or she was seeking.

The smallest application blank received, a semi-rigid card, measured only 3 by 5 inches but nevertheless contained twenty-three items upon which information was sought. A copy of this blank is reproduced here.

The typical large application blank measured 8½ by 11 inches and covered four pages. Many of these blanks were of standard makes, although not fewer than five distinct types were noted. The great majority of superintendents, however, apparently prepare their own application blanks and have them printed locally. These blanks commonly consist of one sheet, with printed matter on both sides.

There is much similarity in the information sought by means of the application blanks, although the order in which the information is to be recorded differs markedly. In general, the main categories are: (1) formal and personal data; (2) training; (3) experience; (4) professional interests; (5) lists of personal references.

Every application blank analyzed requires that the candidate's full name, date and place of birth, permanent address, telephone number, age, height

formation is sought. Questions such as the following are frequently asked: "Are you married?" "Have you ever been married?" "Is your husband (or wife) living now?" "What is the occupation of your husband?" "Are you divorced?" "Are you a widow?" If a candidate is married, questions relating to children are asked. Thus, forty-nine of the 148 forms that were analyzed specifically ask if there are any children, but only eight of these ask about the ages of the children. Three systems make the inquiry a little more searching and inquire about the number of dependents the candidate has.

While doubtless many schools refuse to employ married women, only one of the application blanks examined expressly made mention of the fact. This one stated: "We do not employ married women unless widowed. Marriage during the term of contract cancels the contract." As the last sentence reads it may be interpreted to apply to men as well as women but probably was not meant to do so.

Thirty-three of the 148 schools considered ask what is the nationality of the candi-

JACKSON (MICHIGAN) PUBLIC SCHOOLS
APPLICATION BLANK

Name-----Position Desired-----
Address-----Second Choice-----
Home Address-----Present or Last Annual Salary-----
Date-----192---Age---Weight-----Height-----
Married or Single-----Nationality-----Health-----
EDUCATION- Higher schools attended: years; courses; dates of
graduation; degrees, if any;

Teacher's Certificates----Photograph sent?----Apply in person
if requested.

The smallest application blank received consisted of a semi-rigid card, measuring 3 by 5 inches. On it were listed twenty-three items upon which information was sought. A copy of this blank is reproduced here.

EXPERIENCE: Total-----years. Positions held, grades or subjects.
places, dates, years in each.

References:-----

If applicant for grade positions, can you teach public school
music? Drawing?----Permanship?-----What system?-----

and weight be given. A few, (6 out of 148) request that the title, Mr., Mrs. or Miss, be stated; a few (4 out of 148) require that a married woman give her maiden name and a few (7 out of 148) ask the specific question, "Sex?"

One-hundred-nine (out of 148 reporting) inquire respecting the marital state. Most frequently this information is requested merely by using the words "Married?" or "Single?" In a goodly number of cases however more detailed in-

formation is sought. One makes inquiry respecting the nationality of the father and of the mother; three ask what is the native state of the applicant; fifteen ask to what race he belongs; eight inquire what the candidate's color is; twenty-one inquire whether the candidate is a citizen of the United States, while a few desire to know when and where the applicant was naturalized, if he is not a natural-born citizen. One superintendent asks about war service of the candidate, while four

make inquiry respecting the fraternal orders to which he may belong.

The health of the candidate is a matter of concern for nearly every superintendent, although some are much more searching in their inquiries than others. Fifty-eight of the 148 school systems studied employ the word "health," merely as a stimulus to a response. Twenty-five systems ask definitely, "What has been the condition of your health during the past two years?" Eight superintendents inquire, "How many days have you lost during the last year on account of ill health?" One school asks, "Have you had a physical examination recently? If so, what were the results?" Thirteen schools inquire if the candidate can produce a doctor's certificate of good health. Seven say that a physician's certificate showing the candidate as physically fit to teach is required, and ask if the candidate is willing to submit to a physical and medical examination. Six other school systems merely ask if the candidate is willing to take a physical examination, without indicating whether or not such an examination is required. One blank contains spaces for the physician's affidavit respecting the health and physical fitness of the candidate and requests that this be supplied when the blank is returned.

Closely related to the question of health is the question of physical defects. Forty-seven of the 148 superintendents

ask if the candidate has any serious defects in sight or hearing, while sixty-five question further whether the applicant has any bodily defects. One specifically inquires regarding defects in speech. The following are other questions relative to health that appear on some of the blanks: "Do

you wear glasses? Why?" "Have you had any severe illness during the last year? If so, what?" "Have you had any organic or functional disease or disorder, so far as you know? If so, what?" "Are you frequently absent from school?" "Have you any disease of the lungs or larynx? If so, what?" "Has any member of your family ever had tuberculosis?" "Have you been successfully vaccinated?" "Will you be vaccinated upon the request of the school department?" On one form there appears the query, "Are you willing to abide by such rules as the board may make pertaining to health matters?"

That the complexion and the color of the hair and eyes are important for some employing agents is evidenced by the fact that many of the application blanks have a query regarding the complexion, three ask about the color of the hair and eyes and one inquires whether the applicant is a blond or a brunette.

Church affiliations, or at least expressed religious interests, are felt by most employing agencies to be important matters in considering a candidate for a position. Thus, seventy-five of the 148 blanks analyzed expressly

Contract

Ypsilanti, Michigan.
.....192..

It is hereby contracted and agreed between the District Board of Education, of Fractional School District No. 4, City and Township of Ypsilanti, County of Washtenaw, and State of Michigan, and..... a legally qualified teacher, that the said shall teach in the public schools of said District for the school year commencing on the first Monday of September, and the said agrees to perform faithfully all duties pertaining to said schools as required by the District Board and Superintendent of Schools, to carry out to the best of..... ability the course of study, and to observe and enforce the rules of said District Board and of the Superintendent of Schools.

The said District Board, in behalf of said District, agrees to pay said for such services as teacher, the sum ofdollars (\$.....) per year, payable in twelve monthly installments, the first installment payable at the opening of the school year, the twelfth installment payable the last day of July following the close of the school year: Provided, That in case said shall be dismissed from the schools by the District Board for violation of this contract, shall not be entitled to any compensation from and after such dismissal, and in case of resignation or dismissal the total payments made shall be such part of the annual salary as the actual number of school months taught is of the total number of school months in the school year.

It is further agreed that the terms of the above contract imply a moral obligation, and that they are to be so regarded by both parties.

In witness whereof, we have hereunto subscribed our names, this day of 19....

.....
President of District Board
.....
Secretary of District Board
.....
Teacher

make inquiry into this subject. Most of those ask two questions, namely, "Of what church are you a member?" and, "If not a member, what church do you prefer or attend?" A number of superintendents, however, do not stop there, as the following questions indicate: "Do you attend church and Bible School regularly?" "Will you attend church services and Bible School every Sunday while in _____?" "Will you unite yourself with a local church when you come to _____?" "Do you object to reading the Bible in the public schools?" "Do you attend church regularly?" "What is your religious faith?" "Give the name and address of your pastor."

Use of Tobacco Is Investigated

The question of the use of tobacco is deemed important enough to be made the subject of inquiry by certain officials. Thus, eleven of the 148 application blanks analyzed expressly ask, "Do you use tobacco in any form?" One says: "State your attitude toward the use of tobacco?" Another inquires: "Do you use cigarettes?" While two officials ask: "Are you willing to abide by such rules as the board may make respecting the use of tobacco and other matters?"

In only one application form studied is the question of the use of intoxicating liquors and narcotic drugs mentioned.

Several application forms contain one or more inquiries that may perhaps best be grouped as miscellaneous. Some of the most significant of these are:

"Were you reared in the city or the country?"

"Have you or will you become a permanent resident of this state?"

"If elected and conditions prove satisfactory, do you plan to teach here at least two years?"

"Why do you desire to change?" (Eleven forms.)

"Why do you wish a position in our system?" (Six forms.)

"Can you remain in your present position?"

"Do you qualify under the standards of the North Central Association?"

"Are you under contract now?"

"How may your school be reached?" (Two forms.)

"Were you ever asked to resign?"

"When does your present contract expire?" (Three forms.)

"Could you come for an interview?" (Twelve forms.)

"List the honors you have received since graduation." (Two forms.)

"Have you ever been dismissed from a position?"

"If elected, will you fulfill your contract?" (Three forms.)

"Are you a legal voter? Do you exercise franchise?"

"To what extent do you think a teacher should participate in community activities?"

"Do you have duties that would interfere with your accepting any assignment for the good of the system, or attending meetings or participating in other activities outside of school hours?"

"What part do you take in social, religious and community welfare activities?"

"Do you put school duties first?"

"Do you exercise wholesome discipline?"

"When you accept a position do you regard your acceptance as a contract to be dissolved only by mutual consent?"

"What is your principal form of recreation?"

"Whom do you know in our town?"

"What is your mental test score?" (Two forms.)

"If elected to a position in our school, do you agree to accept and remain the full school year (sickness alone preventing), unless honorably excused by the board after you have given to the principal not less than thirty days' written notice of your desire to be released?"

"For what position or grade do you wish to apply?" (Almost always asked.)

"Do you hold a certificate valid in our state?" (Twenty-nine forms.)

"What is your present salary?" (Almost always asked.)

"What salary do you expect?" (Almost always asked.)

"Can you sing?" (Frequently asked.)

"Can you play a musical instrument?" or "List the musical instruments you can play." (Frequently asked.)

"When can you begin work?" (Frequently asked.)

"It will be to your advantage to keep on file a recent photograph. (If not recent, or a poor likeness, so indicate.)" (Found eight times.)

(To be continued)

How One Kansas County Maintains a Cooperative Library

A cooperative library in Osborne County, Kansas, is maintained by the payment to the county superintendent of \$5 a year from each district to buy books, says an item in the *Journal of Education*. The plan gives each school access to a larger number of books than could be obtained through individual purchase.

Beauty and Economy Are on a Par in These Three Parochial Schools

St. Mary's, St. Brigid and St. John the Baptist Schools are so planned that every available inch of space is utilized, with nothing of beauty and good taste sacrificed for the sake of economy

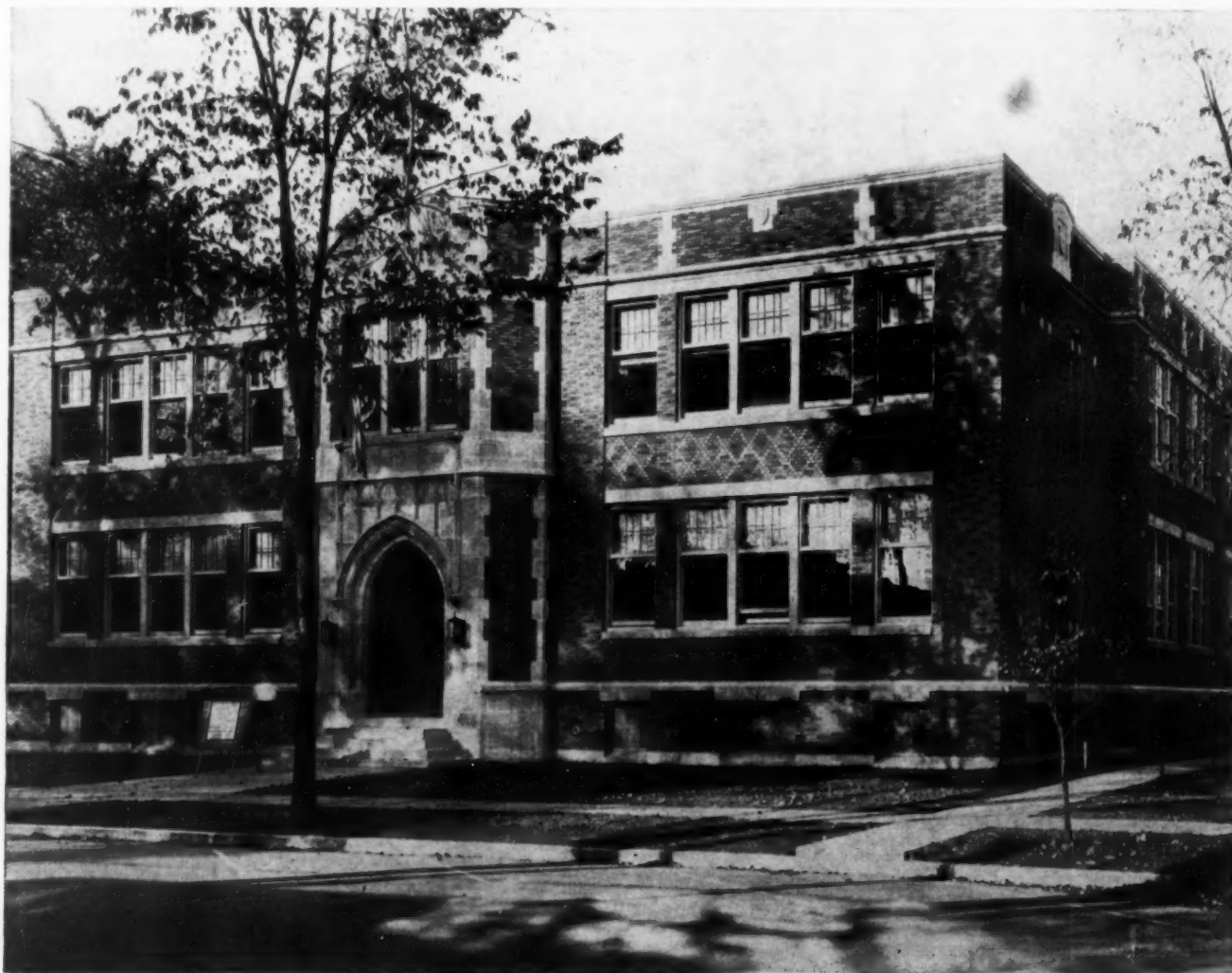
BY PAUL HUEBER, ARCHITECT, SYRACUSE, N. Y.

THE new parochial school of St. Mary's Parish, Rome, N. Y., is the result of a study of the building requirements of the parish extending over a period of several years. The school stands upon a lot 100 feet wide, with plenty of depth from east to west.

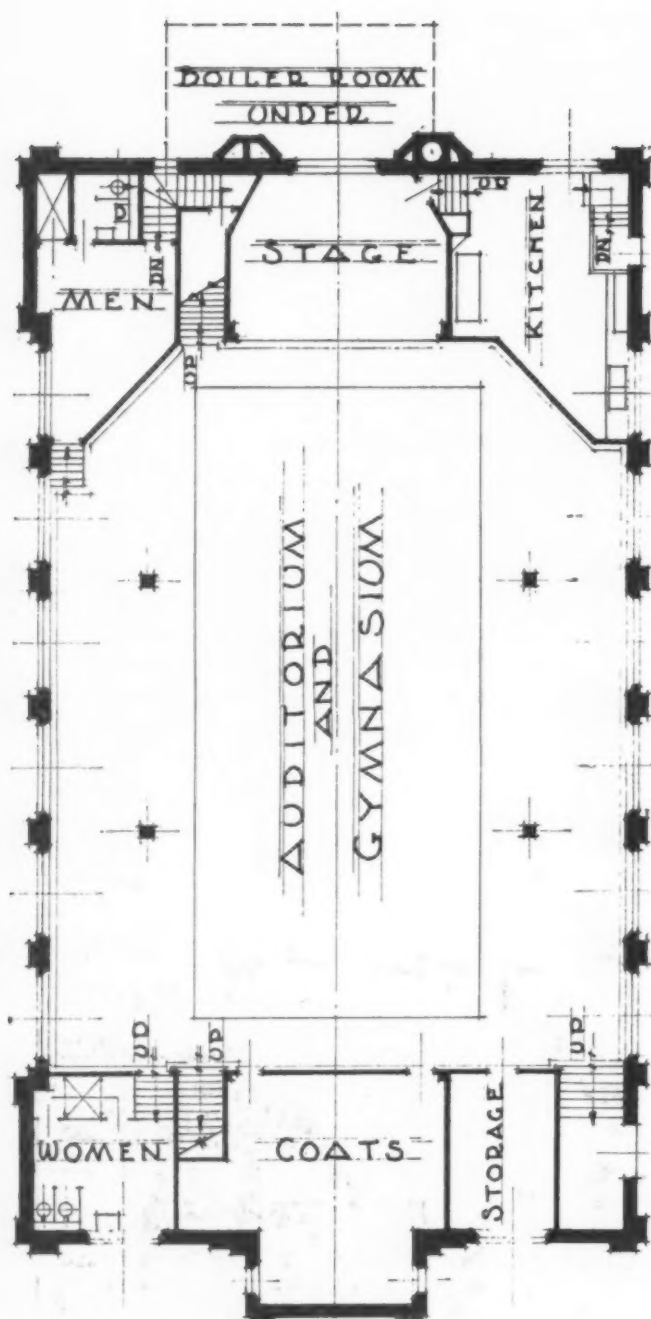
In planning the school it was decided to combine the gymnasium and auditorium into one room to reduce the expense; then, too, the demand was hardly great enough for separate rooms. Base-

ment room requirements were limited to play space for the pupils in rainy weather and to overflow space for social functions at the school. While only eight classrooms were required the plan provided for ten, which included a combined office and library and a room that was set aside for school society meetings, or for use as a classroom should a crowded lower grade make such use necessary.

The auditorium is forty-seven by eighty feet



St. Mary's School, Rome, N. Y., was built after a careful study of the educational needs of the community.



The basement plan of St. Brigid School, showing the combined auditorium and gymnasium.

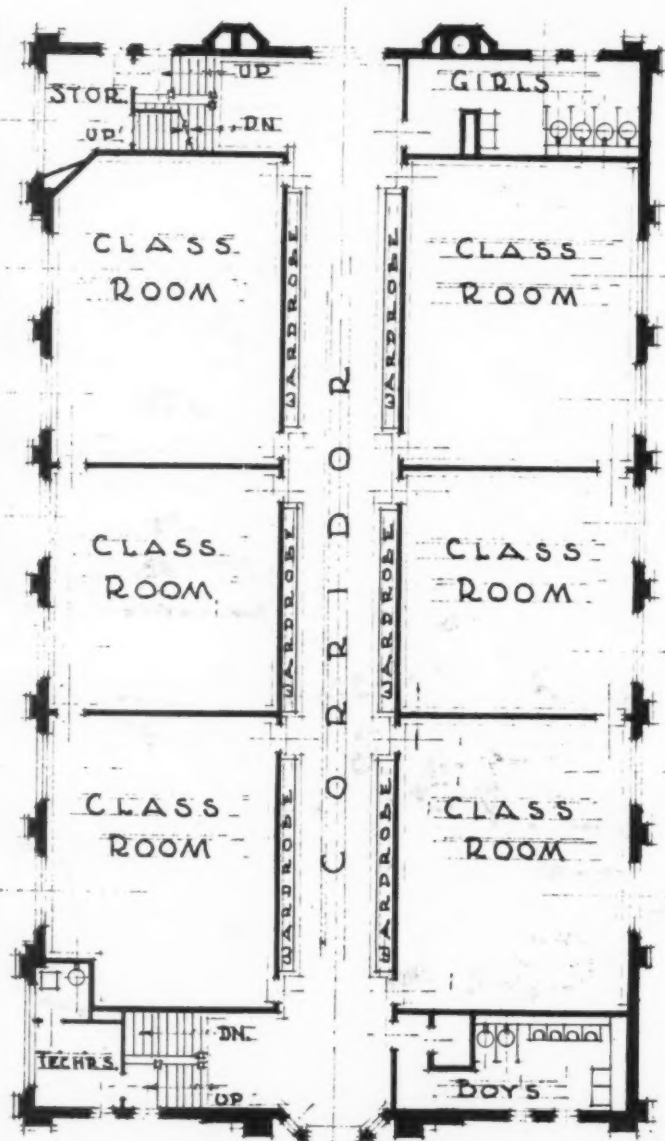
and seats 600 persons, with a balcony at one end that seats 150 persons. Between the balcony and the stage is a forty-seven by sixty-foot basket ball court with a maple floor. The baskets are removable so that they may be put out of the way when not in use. A completely equipped kitchen adjoins the auditorium. This room may be utilized for a variety of functions, such as dinners, card parties, plays, the general assembly of school children and basket ball and other athletic activities.

The old school building, a long, narrow building with two classrooms to a floor, was remodeled for bowling alleys on the first floor and men's

card rooms on the second floor, all of which simplified requirements for the new school and saved a considerable amount of money besides.

The classrooms, twenty-four by thirty-one feet, extend across the front of the building and along the south side, thereby assuring sunlight in every room. The importance of sunlight for children is being stressed more every year, especially since the manufacture of a new glass that transmits the health giving ultraviolet rays.

St. Mary's School is of fire resistive construction throughout. The basement walls are of poured concrete, reinforced with steel bars. The structure is supported by a steel frame—steel columns and beams—there being no bearing walls. The floor construction between the beams is what is known as steel joist construction, on top of which is placed two inches of concrete with a metal lath reinforcement. On top of the two-inch slab, wood sleepers or nailing strips are wired in place



The classrooms are on the second floor of St. Brigid School, and the corridor is lined with lockers.



The St. Brigid Church and School, Syracuse, N. Y.

to receive the maple floor. The bottom of the joists are covered with metal lath and plaster to form the ceiling of the rooms. Partitions are also of pressed steel and metal lath, except in the basement where hollow tile partitions with cement plaster have been used.

Roof Design Is Simple

The roof construction consists of two-inch plank over a steel frame. Since Rome is in a heavy snow belt, parapet walls were eliminated and a roof conforming to Barrett specifications was carried to the outside edges of the walls. All the metal above the roof in the penthouses, vents and flashings is of copper. This simple roof design was planned to eliminate the roof troubles so common in the snowy sections of the country where the walls are built above the roof to form snow pockets. Rainwater is carried down through the building in steel pipes around which warm air circulates to keep them always clear of ice.

The corridor floor and the base of the first story are of terrazzo, divided with brass strips, while the second floor corridor is of cement. Steel stairs with mastic-fill treads were installed. On one side of the corridor, wardrobes without doors were built into the wall and the floors of the wardrobes were dropped half an inch and finished in cement to take care of the water from um-

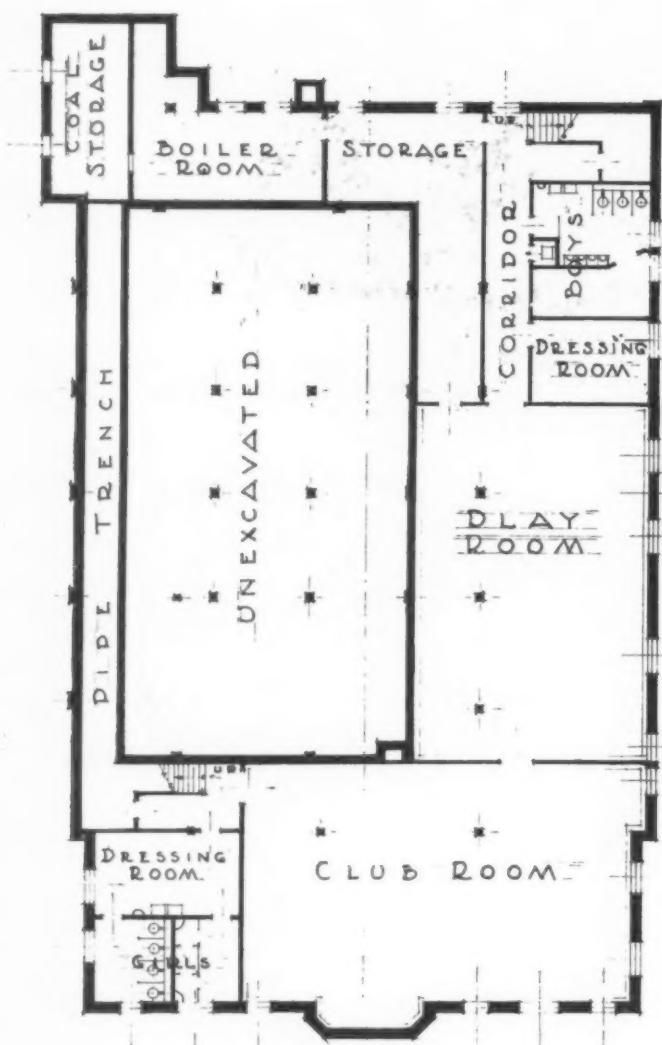
brellas. The two front rooms, with no corridor space available, have a special type of wardrobe in the rear of the rooms. The entrance vestibule has a marble floor, stairs and wainscoting.

The classrooms and wardrobes are vented by gravity, through ducts that lead to ventilators on the roof. The toilets are vented by electric fans placed in the attic space. The fans are connected to the toilets by metal ducts.

The door frames are of pressed steel, except for the wardrobe doors which are of wood. Blackboards are of natural slate and extend around three sides of classrooms. Corkboard panels are placed over the blackboards.

A different toilet arrangement has been the means of saving considerable floor space. The toilets serving the first floor are in the basement. Adjacent to the toilets are showers and dressing rooms. The second-floor toilets are just off the stair landing a few steps above the second floor. The toilets have tile floors and enameled metal toilet partitions.

There is a vapor vacuum heating plant with a steel tubular boiler. An arrangement that insured plenty of heat during the construction of the building was one in which it was agreed that the owner should furnish the fuel and the contractor should supply a fireman. The result was a dry building by the time the wood trim was placed. To include temporary heat in a building



St. Mary's School has its play and club rooms in the basement.

contract is not fair either to the owner or to the builder.

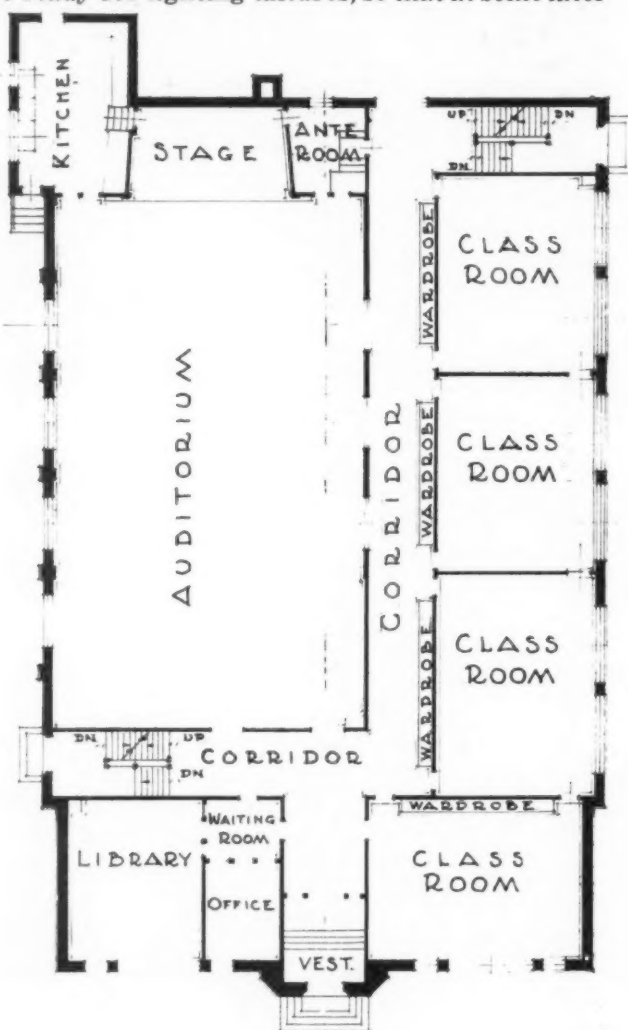
The exterior is of brick and cast stone. The brick is a beautiful tapestry brick with several shades of red and purple tints, laid with chocolate colored joints, raked out. Wood sashes were used for the classrooms and auditorium while steel sash was used for the basement windows. That the plan of St. Mary's lends itself to economic construction is shown by the fact that the cost was only thirty-two cents a cubic foot, and this included the architect's fee.

The Rev. George Heisler is pastor of St. Mary's Parish. In the planning of the new school, Joseph Rees headed the building committee.

St. Brigid Parish, Syracuse, N. Y., of which the Rev. William McCormack is the pastor, is a newly formed parish in a built-up section of the city where the requirements called for a combination school and church building. The lot is adjacent to a public playground in the rear, which is ten feet below the front line of the property.

The slope of the land permitted a deep basement with large windows. This basement is utilized as a dining hall, a gymnasium, a play-room and a card room. The columns supporting the first floor are widely spaced in order not to interfere with basket ball games. As shown on the plans a large stage, kitchen, storerooms, cloak rooms, toilets and a movie booth are in the basement along with the auditorium.

The first floor, which is used temporarily for a church, seats 800 persons. The pipes are all placed for future plumbing fixtures and the wires are ready for lighting fixtures, so that at some later



On the first floor of St. Mary's School are the library, the auditorium and the main office.

date this floor may be made into six rooms at a minimum expense. The second floor has six rooms, with toilets at either end of building. The classrooms have east and west exposures thus assuring sunlight in all rooms.

St. Brigid School is built of steel and reinforced concrete, a fire resistive combination. Because of the open basement with its few columns, large steel beams were required to carry the load.

To eliminate columns on the first floor, now used for church purposes, the second floor was hung from steel trusses built into the attic space.

The roof is of poured gypsum over steel beams. Since the Syracuse building code requires a fire-proof roof, gypsum fills this requirement and is an excellent insulator as well. Over the gypsum is placed a built-up roof flashed with copper.

Classroom floors are of maple, as is also the floor of the gymnasium. Corridor floors are of cement. Toilet floors are tiled and toilet partitions are made of slabs of slate. Wardrobes are recessed off the corridors and do not have doors. The recesses are ventilated through galvanized ducts that lead to ventilators on the roof.

Classrooms have two doors leading to the corridor. Doors also connect the rooms. Doors to the corridor are glassed to permit the inspection of classes without the supervisors' entering the rooms. Slate blackboards, with corkboard strips above for the display of pupils' work, extend around three sides of the classrooms.

The boiler room is in a sub-basement back of

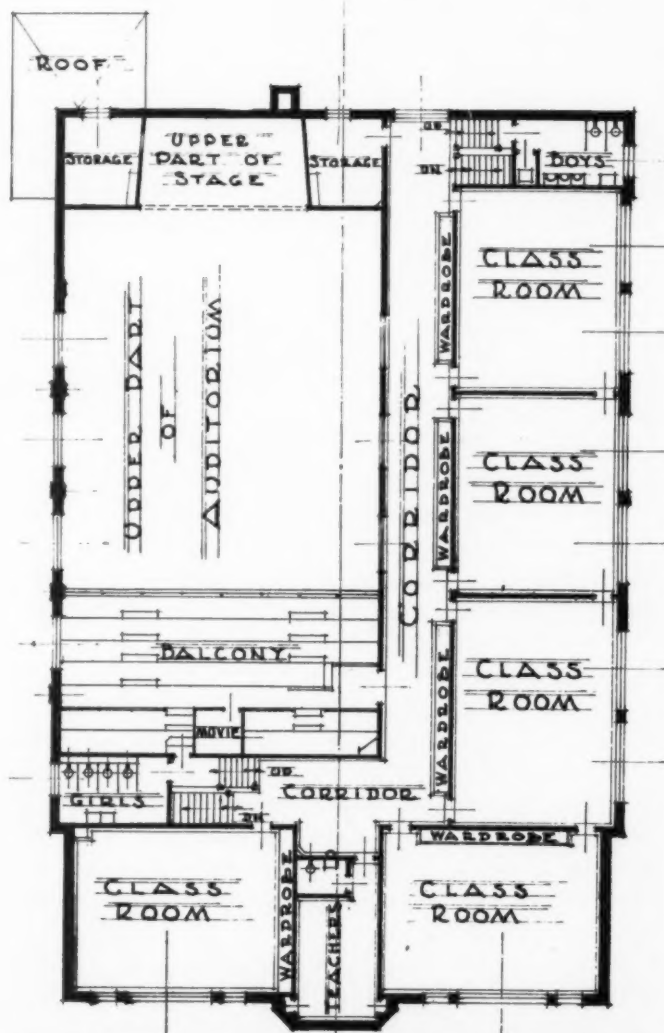
the stage. Oil is the fuel used. Steel tubular boilers were installed with a vapor vacuum system.

The exterior is of Gothic style with face brick and cast stone. The dark red brick sets off the stonework to good advantage. The entrance to the church part of the building is impressive. The windows are of steel with a small lower section hinged at the bottom to swing in, and two upper sections hinged at the top to swing out, an ideal arrangement for window ventilation.

The design of St. Brigid School is in line with a tendency on the part of Catholic priests to build not only well planned buildings, but also good looking buildings. Good architecture is not necessarily a matter of expense; it is rather a matter of good taste in materials and in the proportioning of those materials.

The new school of St. John the Baptist Parish, Syracuse, N. Y., of which the Very Rev. Charles F. McEvoy is the pastor, is built on the same plan as St. Brigid School. This building is used entirely for school purposes since this parish has a large church. The heating plants of the church, the rectory and the convent were in need of repairs, so a central heating plant was installed in a sub-basement of the school. Two steel tubular down draft boilers were used.

The exterior is of face brick and Indiana limestone. The windows, known as the projecting type, are of steel.



The auditorium at St. Mary's is equipped with a projection room for movies.

A Noted Educator Gives His Views on High-School Fraternities

How a noted educator regards high-school fraternities is told in the book, "The High-School Boy and His Problems," by Thomas A. Clark, dean of men, University of Illinois.

Dean Clark says: "If I had a boy I should be sorry if he became a member of such an organization. I have seldom known a high-school fraternity which did not stir up trouble. The exclusiveness of it arouses envy in the minds of those who are not invited to join. It develops cliques and factions, and breaks down rather than strengthens high-school spirit. It makes a boy arrogant and something of a cad. For all these reasons I believe the high-school fraternity is in a majority of cases not the healthiest and best medium for the social activities of the high-school boy. It develops social selfishness, its members are likely to overestimate their own social importance, it encourages extravagance in money matters and a contempt for others who are outside of this social aristocracy."

Protecting Teachers and Pupils by Workmen's Compensation Acts

To what extent is the school district liable for injuries to pupils on school premises or for injuries to teachers and other employees received in the course of employment?

BY RICHARD B. THIEL, PROFESSOR OF EDUCATION, LAWRENCE COLLEGE, APPLETON, WIS.

IN CASE of injury to pupils on school premises, is the city or school district liable, especially if it can be shown that such injury was the result of negligence on the part of school officials or their employees?

To what extent is the school district liable for injury to teachers and other school employees in cases where there is no statute law in regard to such liability, or where there is such a statute and where facts show that the injury was traceable to the negligence of school officials, or where, in the application of the law, the facts do not reveal any evidences of negligence on the part of the school officials?

A casual examination of these two questions makes it obvious that the answers to them are by no means the same, because of the material differences in the nature of the cases, and because of differences in the laws of the several states and their interpretation by the courts.

Recognizing School Districts' Liability

The answer to the first question, concerning the extent of the liability of a school district for injuries to pupils in school buildings or on playgrounds, for the great majority of the states, is simple. It is practically an unqualified "No," and is supported by a long list of almost unbroken precedents. All but a few of the states have applied the common law principle of limited liability and have refused to recognize any liability for any injuries to pupils regardless of the facts determining whether or not such injuries were due to negligence on the part of school officials or their employees.

Scores of cases might be cited to show the consistency with which courts have held to the doctrine that no liability can be implied. However, if it is the purpose of the legislature of the state to hold districts liable for injuries to pupils it must be clearly specified by statutory enactment. At present, Washington is the only state that has thus recognized the liability of school districts.

As the result of the law in that state, suits brought against school boards for the recovery of damages for injuries to pupils became so numerous that in 1917, the law was amended to curtail its application. It provided that "No action shall be brought or maintained against any school district, or its officers for any noncontractual acts, or omissions of such, relating to any park, playground, or field house, athletic apparatus or appliance or manual training equipment, whether owned, operated or maintained by such school district."¹

New York Laws an Exception

Court decisions in New York have also recognized liabilities for injuries of persons resulting from neglect of duties by school officials. In this state the reasoning of the court has been that action may be taken against the board on two grounds: for maintaining a nuisance and for negligence of its duties to keep school property in repair. Accordingly, the courts have sustained liability for the fatal injury of a pedestrian by the falling of a flag pole from the roof of the high-school building.² A similar decision was reached in the case of injury to a pupil by the falling of plaster from the ceiling in a school building not kept in proper repair.³ In a more recent case the board of education was held liable for the injury of a boy which resulted from the use of defective machinery in the manual training department⁴; and also for injury sustained by a child in the use of playground apparatus not kept in a reasonable state of repair, although the individual was a mere invitee in using the apparatus.⁵ In these cases it is understood that the members of the board were not held liable individually, but as an official body binding the school district.

The rulings by the New York courts stand out in striking exception to those in other states, which, as has already been stated, follow the common law doctrine that the state or municipality

cannot be held for the neglect of its servants. It is interesting to note that the rulings of the English courts, based on the Act of Parliament of 1902, impose upon the school authorities the duty of keeping the school premises in a state of repair. In a ruling by the King's Bench, March 11, 1910, a nine-year old pupil in a public elementary school was allowed to recover damages for injuries caused by a fall due to his foot's catching in a hole in the pavement of the playground.⁶

In stating his opinion Justice Fletcher Moulton put forth the following argument: "The pupils are not merely permitted or invited to come to school but are directed to do so, and I think that as members of the public, if they are injured by neglect of a statutory duty with regard to a place where they are expected to play, they are entitled to make those upon whom the statute has imposed the duty, responsible for injuries sustained by them through breach of such duty." To this Justice Farwell added: "I think that the effect of the statute is to make the managers the statutory agents of the county council to keep the schools efficient, and the county council is responsible for the acts or defaults of its agents." This is a direct statement of the doctrine of *respondeat superior*, that our American courts have held as not applying to the state or its divisions, which is to say, that the state will not allow itself to be held for the acts of its servants.

Will the Other States Follow?

As far as fairness and logic are concerned, it appears evident that the states of Washington and New York, whose decisions are in agreement with the English courts, stand upon advanced ground in keeping with the modern conceptions of human welfare. Yet from the point of view of American jurisprudence, they are not in accord with established precedents. Whether they are manifesting a leadership that the other states will eventually follow is a matter for speculation to be settled only by time.

It may be pointed out that the last twenty-five years have witnessed a tremendous change in the matter of employers' liability and have brought forth much legislative activity on the subject of workmen's compensation acts, the most of which have been made applicable to public employees as well as to employees of private concerns or corporations. Who will say that with our more complex modes of living and our highly elaborated educational equipment, there may not be a further extension of conceptions of public liability to include pupils whose attendance at school we now compel by law?

A study of the federal laws and statutes of the forty-eight states of the United States and the territories of Alaska, Hawaii and Porto Rico shows that there has been much legislation dealing with the problems of employers' liability and workmen's compensation for injuries received by them in the course of their employment. Only five states, Arkansas, Florida, Mississippi, North Carolina and South Carolina, have failed to enact such laws.⁷ Of the laws of the forty-three states and the territories that have passed workmen's compensation acts, in all but six the law applies also to public employments. These six exceptions are Alabama, New Hampshire, New Mexico, Oregon, Texas and Alaska.

How Compensation Laws Are Administered

It is interesting to note that the United States Government led the states in passing such legislation by an act that became effective August 1, 1908. Wisconsin was the pioneer among the states with a law passed May 3, 1911, although Nevada, New Jersey, California and Washington enacted similar laws during the same year and in the order named. However, it must be added that the United States was the last of the great industrial nations to recognize a social interest in the injuries of workmen.

In seventeen states the liability of employers is met by insurance provided through state funds, while in the remaining twenty-six it is borne by each employer directly or by insurance companies selected by them, subject to the approval of the state, in case they do not wish to assume direct liability. In thirty-two states the law is administered by a board or commission to which full jurisdiction in such matters is given, subject, of course, to appeal to the courts. In four states this authority is in the hands of a single commissioner.

The constitutionality of these compensation acts has been attacked in the courts by the employers in a number of instances. But in practically all cases their validity has been sustained except in cases where the language of the constitution has been somewhat contradictory. In Wyoming such laws were specifically authorized by a provision included in its original constitution. Arizona, California, Ohio, New York, Pennsylvania and Vermont have authorized such acts by constitutional amendment, while the remaining thirty-six states have relied on implied powers for such legislative enactments. Practically the only important case in which a state supreme court held the application of the workmen's compensation to a municipality void was in Georgia.⁸ In this particular case it was held that

to require a county to levy a tax for such compensation was in violation of the clause in the constitution which provided that "the General Assembly shall not have power to delegate to any county the right to levy a tax for any purpose, except as specified,"⁹ in which the purposes enumerated did not include workmen's compensation.

This brief discussion of legislation bearing on the problems of liability for injuries has been included to indicate to what extent court decisions subsequently cited may be applied to the individual states in which readers of *The NATION'S SCHOOLS* may reside. A second reason for the inclusion of this material is to show the unmistakable trend in legislation pertaining to these matters, so that in states that have not yet legislated on the subject it may be expected that action will be taken in the near future, particularly in those that show a rapid industrial development.

Liability Depends Upon the State Laws

In the light of what has been said about employers' liability, an answer may now be indicated to the question: To what extent is the school district liable for injuries to teachers and other school employees? Three conditions were mentioned under which answer to the question must be made. The first of these was in the event of the absence of any state laws directly covering such cases. The second condition covers cases under a state law regularly enacted and where the facts indicate some degree of negligence on the part of school officials. The third case also assumes that there has been definite statutory enactment but that the facts do not establish the existence of any negligence on the part of the school officials.

If a state has passed no law fixing liability upon the school district for injury to its employees, either by direct statement or clear implication, the obvious answer is that the district cannot be held. The reasoning is exactly the same as in the case of injuries to pupils. The school district or city is a public corporation with limited powers operating with limited funds, so that to hold school districts responsible in such cases would in many instances prove injurious if not destructive to the general welfare; hence individual advantage must give way to public welfare.¹⁰ In an early New York case under this doctrine a teacher was not permitted to recover damages¹¹ for injuries caused by a defective floor. Similar decisions have been handed down by courts in Massachusetts, Minnesota, Iowa and Rhode Island.

If the state legislatures, however, have enacted

workmen's compensation acts that have been made applicable to public employees, under which teachers are included, the liability of the city or school district becomes clear. If, as indicated under the second condition, negligence on the part of school officials can be shown, the school district must assume the liability no matter how limited its funds may be. Of course, in all such cases the evidence must establish liability according to the application of the law. The wording of most of these statutes is such that it must first be shown that the injury arose out of and occurred in the course of employment. A few of the ruling cases along this line will illustrate the interpretation of this provision.

A comparatively recent Illinois case (1919) well illustrates this point.¹² A school janitor was killed as the result of a fall while he was trimming trees upon the school premises. The application of the Illinois law was limited in that it was to be extended only to hazardous employment and it was questioned whether a school was to be included as engaging in hazardous employment. However, the case was not decided on that point but rather on the fact that trimming trees was not among the janitor's regular duties and in performing this function he had served as a volunteer. Hence, no recovery was to be had since he had not been injured in the performance of his regular employment.

Cases in Which Damages Were Paid

An interesting case illustrating a similar application of the above principle arose in Appleton, Wis., and was passed on by the Wisconsin Industrial Commission.¹³ The board of education representing the city authorized the employment of some of the high-school boys during the summer vacation under the direction of the head of the manual training department for the purpose of making some school furniture. The job was not quite completed during the summer, so it was arranged for several of the boys to continue the work at the school on Saturdays. On the first Saturday before the work was well started one of the boys caught his hand in a power saw thereby crippling himself for life. Although the boy had not drawn any pay for this particular work, it was shown that he had received payment for his summer's work. The commission ruled that it was clear that the young man was in the employ of the city under the authorization of the board of education and awarded him \$1,000 for damages. The case was not appealed to the courts as it was deemed certain that the award would be affirmed.

A third case, involving damages to a high-

school teacher for injuries received in moving furniture which had been left piled up in the schoolroom after a school party, is enlightening.¹⁴ Although it was not the teacher's duty to move the furniture in her attempt to get at a book needed for her class work, the court would not allow a plea of contributory negligence against her or a claim that the accident was the direct result of the wilful misconduct of the injured party. It was held that the teacher's attempt to move the piled up seats to get at the bookcase was a risk arising out of her employment and that there was a causal connection between the conditions under which the work was required to be performed and the resulting injury, and the award made to her was accordingly sustained by the court of last resort.

Employer's Negligence Not a Material Issue

In applying the law the court cited definitions of authorities as to the nature of risks arising out of due course of employment among which the following may be cited as distinctly helpful to superintendents in applying specific cases¹⁵: "A risk is incidental to the employment when it belongs to or is connected with what a workman has to do in fulfilling his contract of service. . . . There must be a causal connection between the employment and the injury and the injury must be the rational consequence of some hazard connected with the employment."

From the preceding, it is apparent that in injury cases under workmen's compensation acts the matter of negligence on the part of the employer is not a material issue although its existence will make a stronger case for the injured person. The main contention is the determination of the application of the act to schools and school districts. This will depend upon the wording of the law, although in most cases it has been held that if the purpose of the act is to apply to public employees, teachers and other school employees are to be included. This is illustrated in a bulletin issued by the Minnesota Department of Labor,¹⁶ in which it was held that a school district would be held liable under the Minnesota Workmen's Compensation Act and that it was the duty of the board of education to carry insurance covering such injuries.

Another interesting California case may be cited.¹⁷ The plaintiff, a school teacher, after the dismissal of school remained in the building to prepare her school work. Before leaving the building she went to the telephone booth, off the main hall, to send a private message. As she left the booth she tripped over the telephone cord, fell upon the floor and was injured. The com-

mission held that the accident arose out of and in the course of her employment and that the course of employment is not restricted to acts actually done for the employer, but that it also includes acts that may reasonably be done while at work.

It is interesting to note how far the courts have gone, rationally and consistently, in applying this rule. Among these is a British case that has been much quoted and many American decisions have been based on the principles set forth in this case.¹⁸ Kelly was the assistant schoolmaster in an industrial school and in his efforts to maintain discipline incurred the enmity of his pupils who were boys almost fully grown. According to a prearranged plan he was waylaid and assaulted by them, dying the same day from the injuries inflicted. His widowed mother applied to the county court judge for compensation and was allowed 500 pounds sterling. The court held that the occurrence was an "accident arising out of the employment," and that the attack by the pupils on the teacher was a "risk incidental to his employment."

An American case attempting an extreme, and not altogether logical, application of this doctrine failed.¹⁹ A young woman was employed as a teacher in a one-room school located in a densely wooded region and while on her way home (carrying books and pupils' papers for correction and grading) was brutally and criminally assaulted by an unknown man who lay in wait for her. In the course of her struggles she was shot and one eye gouged out. She sued the district for recovery under the workmen's compensation acts but her suit was not allowed as the court ruled that her injuries were not the result of an accident arising out of and in course of her employment. (Minnesota Supreme Court, July 12, 1918.)

An Unusual Michigan Case

Ordinarily injuries occurring on the way to and from the place of employment are not held to be within this rule. However, when employees are injured en route in the course of their duties its application is evident. This is well illustrated by a somewhat unusual Michigan²⁰ case. A young woman teacher was killed while a passenger on an interurban car on which she was riding to attend a county teachers' institute. She was required to attend the institute under penalty of losing her pay, since the school had been closed for that purpose. The Michigan Supreme Court in its decision (1925) held that as she was required to attend the meeting under penalty of official disfavor it was clear that the accident

arose out of and in the course of her employment.

Similarly it may be asked: To what extent would the school district be liable in case of injury to teachers while using the school's system of transportation provided primarily for the pupils? In this case one could hardly assume that such injury arose out of and in the course of their employment, so this plea could not be sustained. Nevertheless, the district would be held liable because of its voluntary assumption of responsibility, especially if the school authorities permitted teachers to use the busses intended only for the transportation of the pupils, either by direct authorization or by implied consent. If the teachers are delegated to supervise the conduct of the pupils on the school's vehicles, the situation is different, since in case of injury the hazard would assuredly be in the course of the employment. In no instance can the liability of the district be applied to the pupils themselves unless the law so states specifically, which is usually not the case.

Law Must Definitely Provide for Liability

In conclusion it may be emphasized that no liability for the injuries of teachers or pupils exists unless it is definitely provided for by law. If the state has enacted a workmen's compensation act and has applied it equally to public employees, the degree of responsibility will depend upon the exact wording of the law. If it is clear that teachers are included, the liability of employers is recognized whether they be officials of the school district, town, city, county or of the state itself. In such cases the responsibility extends also to private schools unless they are clearly not included, or are especially exempted.

With the wording of their own particular state laws in mind the foregoing cases illustrate to school officials the principles that the courts have followed in applying the law, and will serve as a picture of the commonwealth's intentions in extending protection to its employees.

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- ³ Wahrman v. Bd. of Education, 187 N. Y. 331, 80 N. E. 192.
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- ⁵ Jaked v. Bd. of Education, Albany, 189 N. Y. S. 697.
- ⁶ Ching v. Surrey County Council, K. B. 736.
- ⁷ Jones and Robertson, Digest of Workmen's Compensation Acts in the United States and Territories.
- ⁸ Floyd County v. Scroggins, 164 Ga. 485, 139 S. E. 11.
- ⁹ Article 7, section 6, State Constitution of Georgia.
- ¹⁰ Ford v. School District, 121 Pa. 543, 15 Atl. 812.
- ¹¹ Bassett v. Fish, 75 N. Y. 303.
- ¹² Compton v. Ind. Commission, 288 Ill. 41, 122 N. E. 872.
- ¹³ Bulletin Wisconsin Industrial Commission, 1913, p. 31.
- ¹⁴ Elk Grove Union High-School District v. Industrial Accident Commission, 168 Pac. 392, 15 N. C. C. A. 148.
- ¹⁵ Kiser, Workmen's Compensation Acts, pp. 73, 74.
- ¹⁶ Minnesota Dept. of Labor Bulletin No. 9, 1914.
- ¹⁷ Rieff v. City of Sacramento, 2 Cal. Ind. Acc. Commission 251 (1915).
- ¹⁸ Kelly v. Trim Jt. Dist. School 4 N. C. C. A. 943, Negligence and Compensation Cases, Annotated, Callagan & Co., Chicago.
- ¹⁹ State ex rel Common School Dist No. 1, Itasca Co. v. District Court of Itasca Co. Minn., 168 N. W. 555.
- ²⁰ Stockley v. School District No. 1, Portage, 231 Mich. 523, 204 N. W. 715.

Recognizing Athletic-Academic Merit in Columbus Schools

The plan governing the athletic program of the Columbus Senior High Schools, Columbus, Ohio, is one that may be amplified or changed to accord with the conditions peculiar to various schools and communities, B. E. Wiggins, supervisor of physical education in the Columbus schools, points out. Junior high-school systems with a definite physical education program could also adopt the plan, with or without changes. The plan is outlined as follows:

A board or committee, appointed by the principal, shall function in each high school, the board to be made up of five members including the principal. For such recognition an average scholastic term grade of "G" or better shall be required throughout the pupil's course of three years; the pupil must participate in two or more major or minor interscholastic sports each year; pupils must have won five letters over a period of three years. Other characteristics to be considered include sportsmanship and leadership in the specified activities, nor shall individual brilliancy in a single sport or subject, alone, be the determining factor in the award.

Interscholastic sports to be considered are football, baseball, basket ball, track and field, swimming, gymnastics and wrestling, and cross-country running. When two pupils of equal rank are considered, the one who by energy and self-sacrifice has supported himself through all or a part of his school course shall be chosen.

Acquainting the Citizen With the Schools

What should the citizen know about the schools?

According to the *Journal of the National Education Association*, the citizen should be acquainted with the child-centered curriculum, which consists of a series of activities based on the principle of guided growth resulting in sound health, worthy home membership, mastery of the tools, techniques and spirit of learning, faithful citizenship, vocational effectiveness, the wise use of leisure and ethical character.

He should know what buildings and equipment are needed to meet the requirements of the school program in his community. He should have some knowledge of the basic principles of school finance. He should know the administrators of his schools. He should know the teachers of his children.

Teaching Safety—An Important Phase of Modern School Work



By CHARLES M. HAYES,
PRESIDENT, CHICAGO MOTOR CLUB

Courtesy Milwaukee Public Schools.

WHEN automobiles became so numerous on the streets that they exacted an alarming toll in life and limb, motorists' organizations, educators and psychologists turned to laboratory methods as a means of protecting children.

"Education, in its broader sense, should teach the young ones how to adapt themselves to their environment," they reasoned. "The children of to-day, facing thousands of speeding cars whenever they venture on the streets, are living under conditions entirely different from those encountered twenty or even ten years ago. Instruction in safety measures must be added to their curriculum, and stressed as much as any other study. We must instill caution in these plastic minds, in order that our young people may safeguard themselves not only during their childhood but throughout their lives. We must make safety a habit that will remain with the pupil during his lifetime."

Like scientists in a laboratory, the safety workers surveyed their problem in a calm analytical manner. They learned that many children were killed in the middle of the block, while crossing the street, hitching, roller skating or playing ball; that more young children lost their lives than older ones; that more deaths were recorded

between the hours of four and six in the afternoon than during any other two-hour period of the day; that about three-fourths of those killed were boys, and that many fatalities occurred in the vicinity of schools.

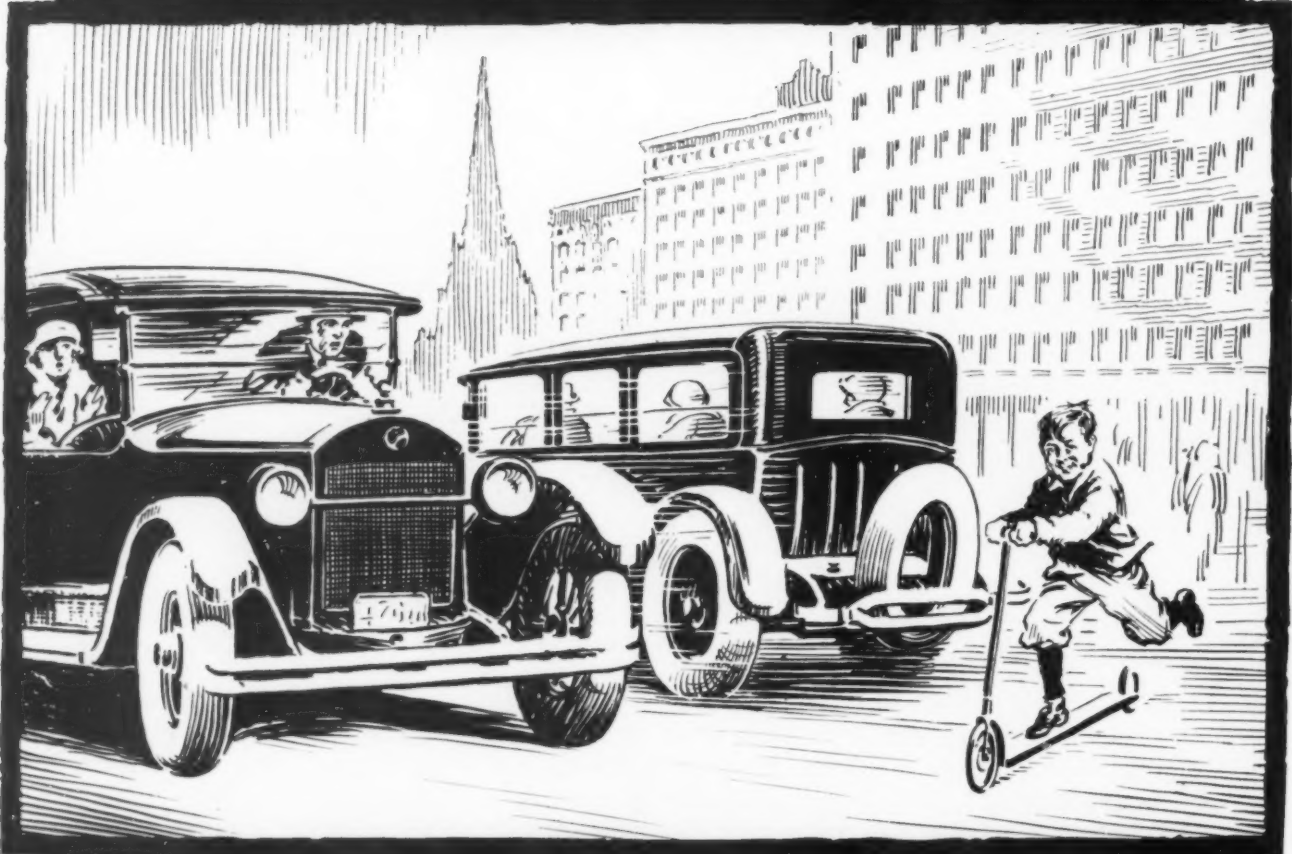
The automobile clubs devised various ways and means of averting these tragedies. The motor organization in Detroit established the custom of giving medals to children who distinguished themselves in preventing accidents. It assisted in organizing courts, maintained by the children, where juvenile offenders against safety regulations were brought to trial. A verdict of guilty carried with it a sentence to pick up bits of paper in the school yard, or some other odious task.

The Chicago Motor Club has fostered the Schoolboys' Patrol, in conjunction with safety posters in the public and parochial classrooms, as one of the most effective means of creating safety consciousness in the minds of the children. Virtually all of the 1,065 motor clubs affiliated with the American Automobile Association now sponsor this method.

The patrol includes a captain, a lieutenant and a number of officers, depending upon the size of the school and the amount of traffic near it. These boys are selected by the teachers or principal for

SAFETY LESSON NO. 1

PREPARED BY THE
CHICAGO MOTOR CLUB



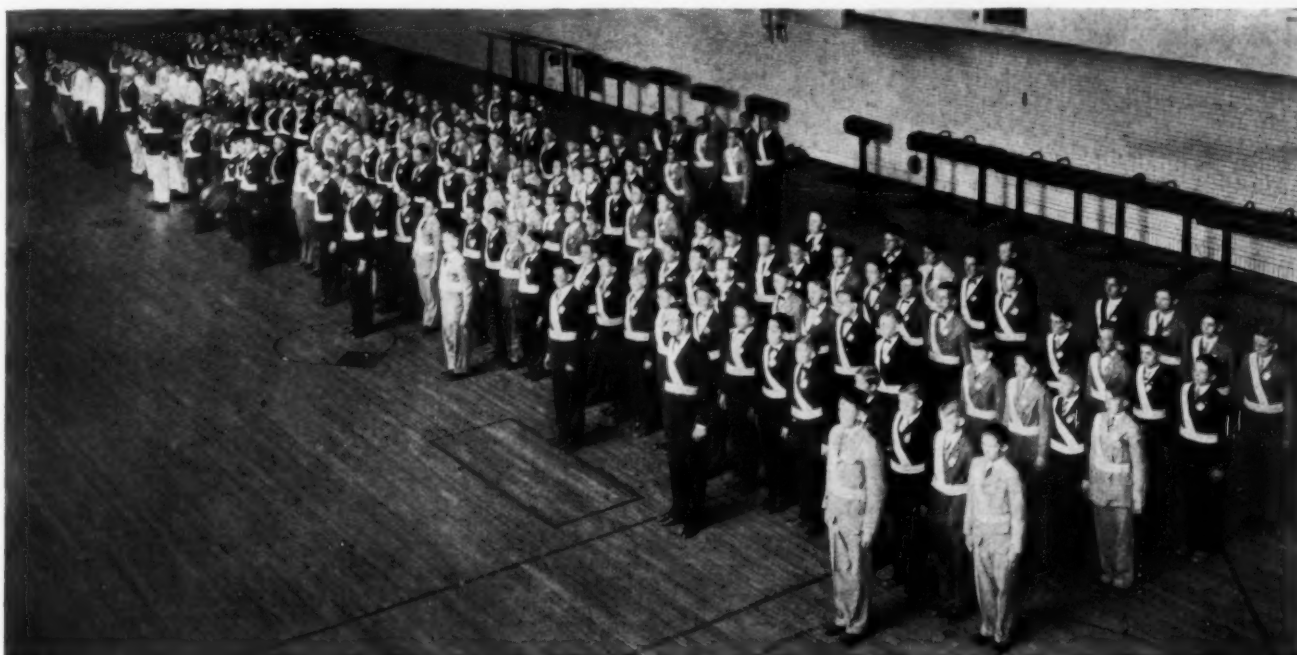
**THE STREETS ARE
DANGEROUS PLAYGROUNDS!**

**YOU WOULD NOT PLAY
ON A RAILROAD TRACK
THE STREETS ARE
EQUALLY DANGEROUS**

their qualities of leadership, courtesy, neatness and ability in classes. Their distinguishing marks are a Sam Browne belt of white webbing, and a badge. They are stationed at all crossings within a radius of a block or two from the school, while pupils are going or coming. Their duties are to assist younger pupils across the street during lulls in the traffic and, if necessary, to order the vehicles to stop. When not actually assisting their fellow pupils, they stand on the curb, safe from danger.

Patrol members bring cars to a stop by an upraised arm, and the white belts of the young officers are familiar sights to most motorists in the territory of the Chicago Motor Club. Seldom does a driver disobey the order of a patrol mem-

caption, "A Problem in Safety," over a picture of a car backing out of a garage. A youngster sits on the rear seat of the vehicle. A question is asked under the picture: "A child is waiting for his father to back out of the garage. Should he wait in the alley? Write your answer." The higher grades write essays on this subject, while the lesson is conveyed to the little tots through a general discussion, led by the teacher. The latter stresses in simple language the fact that the driver cannot see directly behind his car and that therefore the child might be struck if he waited in the alley. Inside the car, however, he is safe. The posters are always timely. Those for December suggest some good resolutions for the new year, or offer a warning to be careful during the



School boys' patrols competing in the gymnasium of Crane Technical High School for the Chicago Motor Club trophy.

ber and the overwhelming majority of drivers are greatly in favor of the movement. The police cooperate with the boys in most communities, and if a driver ignores the upraised hand of a patrol member, the latter takes the number of the offending car and turns it over to the authorities. The owner is called to the station and given a stern warning. Abuse of authority by the young traffic officers is extremely rare and it may be stated in all truth that 99 per cent of them perform their duties in an amazingly efficient and courteous manner.

The patrol brings home to the pupils many of the safety lessons that are portrayed on the posters, which deal with the various phases of accident prevention as applied to children. They are printed in two colors, and a different one is issued each month. One, for instance, has the

Christmas and New Year vacation period. Those issued in May remind the kiddies to keep the safety lessons in mind during their summer vacation.

What are the results obtained by the patrol and the posters? After these systems had been in effect in Chicago for a little more than a year, it was found that for each month there were only about one-half as many seven-year-old children killed as had been the case six years before.

Most children start school at the age of six. The little tots that romp around the house or yard with nothing more formidable to block their path than a toy or a puppy suddenly find themselves upon the streets, where huge monsters bear down upon them at seemingly breakneck speed. Is it any wonder that the little feet refuse to function properly, that the tiny brains are in-



This teacher is emphasizing the safety lesson to some of her pupils.

capable of action, and that oftentimes the little ones dart, panic-stricken, directly into the path of on-coming cars?

But after one year in school, accident statistics show that the children have learned so much about taking care of themselves in traffic that the casualties are cut in half. As they advance through school, they become still more proficient in self-preservation, the statistics show. In Chicago during September, 1928, fourteen children between the ages of five and nine were killed; only three between the ages of ten and fourteen lost their lives. One hundred and sixty of the former ages were injured in that period; only eighty-seven of the latter ages were hurt.

Some may say that the increasing intelligence of the child is responsible for the decrease of accidents to older children. Consider, then, the fact that in the first nine months for 1927, 2,652 children were injured by automobiles on the streets of Chicago, while in the same period this year only 2,554 were so injured. Consider also that this reduction of nearly one hundred was achieved in the face of an ever increasing registration of vehicles.

The vast safety program being carried out by the clubs of the American Automobile Association may be comprehended in some degree when it is realized that the Chicago Motor Club alone

has assisted in organizing patrols possessing a membership of about 15,000, which protects approximately 1,250,000 public and parochial-school pupils in the territory served by the club. This area comprises seven counties in northern Indiana and forty-four in northern Illinois. The belts and badges were supplied by the club without charge to those schools. No fewer than 50,000 posters are issued monthly by the club. They, too, are free to schools in the club's territory.

Officials of the club and school officials believe that this great nationwide safety movement will be still more impressively reflected ten or twenty years hence. The children of to-day, with caution thus stamped upon their minds, will not forget those lessons when they become old enough to take the wheels of their own cars. They will be more careful drivers than the car owners of to-day. As pedestrians, they may be expected to walk more correctly than we.

Still more benefits, say psychologists, will be derived. This generation has woefully failed to instruct its youngsters in safety measures before they start out for kindergarten, witness the high accident rate among six-year-old children. The next generation will begin its safety instruction to children as soon as the latter are old enough to walk with their parents on the streets.

The methods of the Chicago Motor Club in pro-

moting safety have received the unqualified endorsement of such educators as William J. Bogan, superintendent of the public schools of Chicago; H. Wallace Caldwell, president of the Board of Education of Chicago; Edward J. Tobin, superintendent of Cook County schools, and Rev. D. F. Cunningham, acting head of the parochial schools of Chicago. In fact, school officials everywhere who have investigated the merits of these safety measures have, without exception, given the movement their hearty support.

One of the most satisfactory phases of this campaign is the cooperation received from car owners. The white Sam Browne belts of the patrol are such a familiar sight in the Chicago Motor Club territory that most motorists automatically slow up and stop when they see a wearer with his arm upraised. The belt is a symbol of safety.

This movement, which has been growing for nearly ten years, has established these salient facts: Children will never become safety-minded through instinct, they must become so from instruction; instruction should begin at home, at a preschool age; after the child starts to school, the teacher in the classroom stands as one of the greatest agencies in averting traffic tragedies.

Ignorance of the dangers of the street on the part of children is as much to be deplored, if not more so, than lack of knowledge on the subjects of reading, writing and arithmetic.

Organizing a Junior High School in the Small Community

A rearrangement of the junior high-school program to allow more advantageous subject-matter groupings, and provision for detailed and specific instructional material in the form of carefully prepared assignment sheets should offer a basis for the organization of a junior high school in the small community, is the substance of an address made by Francis T. Spaulding, assistant professor of education, Harvard University, before the department of rural education, National Educational Association.

In planning a junior high school the small community cannot attempt to conform to the pattern set by the large school. It cannot hope to have so extensive a class program or so large a teaching staff as the urban high school, which means that it must find some method either of meeting the requirements or of evading them.

Abandoning customary grade lines and combining pupils from two or more grades in subjects offered only in alternate years appears to be the

solution of the class program problem. The grouping of subject matter contributing to general attitudes and appreciations, on the one hand, and of that leading to formal habits and skills, on the other, offers a distinct advantage and makes it less difficult to abandon the usual grade divisions for one type of subject matter and to adopt some system of individual instruction for the other.

The difficulty of securing trained junior high-school teachers has also been a factor in limiting the development of small junior high schools. It has been contended that the junior high school could not succeed without teachers who were not thorough-going specialists. Because of the physical and intellectual immaturity of its pupils and because specialized training should be prefaced by a general introduction to the major field of specialization, study of the technical subjects may to a great extent be based largely upon the study of content materials rather than upon the fostering of technical ability.

In order that a small staff of teachers may take care of the required courses, it will be well to provide them with a body of carefully prepared teaching materials to be used directly by the pupils rather than after translation by the teacher. These materials could take the form of graded assignment sheets, covering in detail the successive units of those subjects in which individual differences are likely to be most significant and in which specialized subject matter receives the greatest attention. With the aid of the assignment sheets, the teacher's function would be to stimulate and guide the pupil's learning rather than to "teach" him all that he must know. At the same time a teacher may guide at one time the individual studying of a number of pupils varying widely in their abilities, their interests, and the particular subjects with which they are occupied.

Startling Figures Reveal Mounting Cost of Education

An idea of the mounting costs of education may be obtained from a statement of Charles A. Rice, superintendent of schools, Portland, Ore., which was published in the December number of the *American Educational Digest*. In referring to scientific procedure in educating the children of Portland, he said, "If the 35-pupil teacher load were reduced by one pupil per teacher the cost would be \$200,000 per year. If the load were reduced by ten pupils per teacher, to twenty-five pupils, the maximum desirable load, the cost would be \$2,000,000 per year."

Safeguarding the Teacher's Health

School administrators to-day are concerned with bringing the teacher to her highest mark of physical efficiency and many are putting into effect definite programs with this as the goal

TIME was when no attention was paid to the health of the teacher by her employers. It was once universally held that the board of education or a community was in no wise responsible for the preservation or the promotion of a teacher's physical condition. Long before there was any consideration of the teacher's health, there was discussion of the desirability of protecting the health of pupils.

At last we are awakening to the importance of safeguarding the teacher's health in every feasible way. This symposium on the teacher's health will be illuminating to those who have not kept in touch with what has been going on during the last few years in providing rest rooms and free medical examinations for teachers, granting leave of absence with pay for short periods of illness and in other ways bringing the teacher to her highest mark of physical efficiency.

Communities are beginning to understand that the health of the teacher is of enormous significance, not only from the standpoint of the well-being of the pupils but also from a monetary standpoint. A teacher whose energies are depleted, who is struggling against fatigue and disease, is a financial liability to a community. It is one of the simplest principles of teaching that a teacher cannot be a leader in a classroom unless she is free from aches and pains and has always on hand an adequate supply of energy to meet her exacting duties.

*Justin A. Garvin, School Physician,
Shaker Heights Village School District, Cleveland:*

"All our teachers are given a physical examination including a blood pressure estimation and urinalysis in the spring. When it is necessary, they are referred to their own physicians for advice or treatment. If it is felt that a summer of rest is needed, we insist that they do not fill their vacation with summer courses or tiring trips.

"Throughout the school year we are consulted by teachers on matters pertaining to their health, but we do not feel that it is the province of a school physician to prescribe for colds, headaches, nervousness, fatigue and other minor ailments.

"Every school building has a rest room for teachers on each floor. The rest rooms have adjacent toilet facilities and are provided with comfortable chairs and nearly all of them have either a settee or cot. The cots in the clinics—one in each building—are also available to the teachers. The proportion of rest rooms to teachers varies from one rest room to every four teachers to one rest room to every eight teachers. Each building has a kitchen that teachers may use, and two buildings have cafeterias. Busses are provided to take the teachers to and from the cafeterias.

"In the grade schools there is a fifteen-minute recess in the morning session of three hours and a ten-minute recess in the afternoon two-hour session. In the junior and senior high schools there are eight forty-five-minute periods. The teachers have one free period, two study hall periods and five teaching periods."

*O. S. Hubbard, Superintendent,
Fresno Public Schools, Fresno, Calif.:*

"A teachers' rest room is found in every school, elementary and secondary, and is supplied with cots, easy chairs, lavatory and, in most schools, facilities for preparing a light lunch.

"Sick leave is granted for ten days a year with full pay. If a teacher is absent more than ten days during any school year because of personal illness, or upon leave of absence, she may not enter upon her duties at the beginning of the next year until she presents a certificate of physical fitness signed by a physician designated by the board of education. This examination is paid for by the board.

"No teacher is employed unless a certificate from a registered physician is filed with the secretary of the board of education, stating her physical fitness to teach. This certificate is subject to review by the director of physical welfare.

"The following rule was recently put into effect, and so far is working out satisfactorily both for the protection of the teacher and for the pupils: 'Any teacher who is absent for the fourth consecutive half day on account of illness will receive a visit from one of the school physicians whose duty it will be to ascertain the probable

length of absence, or to give permission for her to return the following day. A teacher who has been absent for the fourth half day on account of illness may not in any case return to school without permission from the school physician.'

"The school department does not supply teachers with any free medical service."

*A. H. Hill, Superintendent,
Richmond Public Schools, Richmond, Va.:*

"The following provisions for teachers are made in the Richmond schools:

"Teachers have a thorough medical examination on entrance into the system, and if in any session they are absent for as many as ten days, they are reexamined by the medical director.

"Special attention to health is given in the arrangement and equipment of the buildings, and each school has comfortable rest rooms.

"Hot lunches may be bought at reasonable rates at the school cafeterias.

"A state preventorium in which teachers may secure thorough examinations free and treatment and board at reduced rates, is available.

"A refund of substitute pay for five days of illness within any year is allowed.

"A teacher receiving \$125 or less a month must pay her substitute \$2 a day. If the teacher receives more than \$125 a month, \$3 a day is deducted for the substitute. Part pay under this arrangement is granted for fifteen days to any teacher in her first year of service. In her second year of service part pay is granted for thirty days; and in the third or any subsequent year of service, it is granted for five months."

*Wm. J. Bickett, Superintendent,
Trenton Public Schools, Trenton, N. J.:*

"The following might be stated as standard conditions that exist in our schools:

"Ample and properly equipped rest rooms are provided.

"Ten days' absence on account of illness is allowed without loss of pay.

"Thirty-five days' absence on account of illness is allowed with half pay.

"Free medical examination is offered to all teachers. This includes such immunization treatments as are offered to pupils.

"Social activities are organized through our Teachers' Club. Teachers are encouraged to use gymnasiums for recreation, and in the schools where the demand has been created, gymnasiums are reserved one day a week for teachers' use.

"Group insurance providing protection against loss due to illness beyond that allowed by the board of education is offered to all teachers who

care to avail themselves of the opportunity. About 75 per cent of our teachers belong to this insurance group.

"Talks are given and circulars are issued periodically to bring to the teachers' attention the necessity for conserving their health.

"It has always seemed to me a rather anomalous situation when we presented to the pupils in the schools certain standards and rules of health and at the same time made no effort to impose these standards and habits on our teachers. It is true that many of the textbooks and courses of study on the subject of health presupposed or created artificial conditions and contained much that was pure bunk. Recent efforts have resulted I think in saner courses of study recommending standards and habits that are at least partially attainable.

"A serious question arises, however, when we attempt to conserve teachers' health inasmuch as we are immediately accused of attempting to control the life and action of public servants when they are not on duty. I believe in any case that much can be done in an indirect way.

"As a contrast with present day efforts to safeguard the health of Trenton teachers, a study made a few years ago in this city revealed the astonishing fact that at least 60 per cent of teacher absences was due to preventable causes."

*Nelle R. Morris, Supervisor, School Nurses,
Sioux City Public Schools, Sioux City, Iowa:*

"Our teachers are in the schoolroom a maximum number of five and a half hours a day. High-school teachers teach from 8:30 until 3 o'clock with one vacant period and an hour for lunch during the day. Grade teachers are on duty from 9 to 12 o'clock in the morning, and from 1:15 to 3:30 o'clock in the afternoon.

"All schools are equipped with a teachers' rest room.

"Teachers are allowed two weeks' salary during temporary illness."

*I. I. Cammack, Superintendent Emeritus,
Public Schools, Kansas City, Mo.:*

"While Kansas City requires a health certificate, the question of health care is left to the teachers themselves. All of our new buildings, however, are provided with rest rooms. In our high schools teachers are given a rest period. Provision is also made for warm lunches for teachers.

"In cases of absence on account of illness, our teachers are allowed full pay for a school month, or twenty days, during the year. No deduction is made from the teacher's salary for a substitute.

The only requirement is that she shall make a statement to us that her absence was caused by illness. While we feel that full pay for an entire month is probably sufficient, we do feel that an adjustment should be made by which teachers a long time in the service who are overtaken by illness lasting some months should be provided for. Such provisions are under consideration now, and we feel hopeful that we shall be able to get a more attractive plan."

*Chas. A. Rice, Superintendent,
Portland Public Schools, Portland, Ore.:*

"All public-school buildings in Portland are constructed with the welfare of the teacher in mind, and conveniences are provided for her health and comfort. Well lighted, well heated and well ventilated rooms are furnished with suitable equipment, both for relaxation and for work. Teachers' rooms are also furnished with kitchenette and equipment so that warm lunches may be prepared. Chairs, cots, blankets and suitable furnishings are provided so that in case of an emergency the teacher may have immediate first aid attention.

"In the platoon schools, which accommodate about 73 per cent of our elementary-school pupils, the program is so arranged that practically all teachers have one forty-minute preparation or relief period each day, out of the eight forty-minute periods.

"Teachers are allowed one day a month sick relief without loss of pay. Should these days not be used they accumulate until the teacher has to her credit a hundred days which make it possible, in case of ill health, for a teacher to remain out of school a full semester of a hundred days, and receive her regular salary each month.

"While free medical treatment is not furnished the teacher, medical examination for ordinary ailments is available at all times from doctors and health nurses who visit the schools regularly."

*Isabella Dolton, Assistant Superintendent,
Chicago Public Schools, Chicago:*

"In regard to health measures for teachers in the Chicago Public Schools, in all new elementary, junior and senior high schools rest rooms adequately furnished are provided.

"Elementary teachers have a fifteen-minute recess period in the morning, a ten-minute period in the afternoon and a lunch period varying from an hour to an hour and a half. Teachers in junior and senior high schools have free periods during the day, the number varying according to conditions in the schools.

"A teacher who is ill loses \$2 a day in the ele-

mentary and \$2.50 a day in the high schools, for a period of two weeks, and then for ten weeks receives her salary less that paid the substitute. A leave of absence for five months is granted for illness.

"A teacher who has taught seven years may have a sabbatical year for travel or for study. While this was not intended primarily for a health measure, the change of scene and the relief from routine work do undoubtedly tend to improve the health of the teachers.

"Free medical examinations are given to all teachers entering the system and to any returning who have been out of the system a year. There is no periodical health examination of teachers."

*J. H. Painter, Principal,
Steele High School, Dayton, Ohio:*

"Each teacher has one lunch period and one free rest period.

"We have a men's rest room and a women's rest room.

"Each teacher is allowed ten days' sick leave on full pay and twenty additional days on part pay."

*Thomas R. Cole, Superintendent,
Seattle Public Schools, Seattle, Wash.:*

"The Seattle Public Schools during the last year have given special attention to this very important topic. We have set aside a part of the nurses' time in each district throughout the city to give attention to teachers who are confined at home on account of illness.

"We have also changed the rule regarding compensation of teachers during absence on account of sickness. The rule formerly was: 'Teachers absent on account of personal sickness shall be allowed one four-hundredth of the annual salary for each day's absence not exceeding a total of twenty school days' absence in the school year.' The new rule is: 'Teachers are allowed five days' absence each school year for personal illness without loss of pay, and fifteen days each year with loss of half pay.'

"I have personally called to the attention of different groups of teachers the need of providing a plan of greater recreation for teachers outside of the regular school hours. It will be the purpose of the Seattle schools to cooperate in such a movement so far as it is possible."

*James H. Harris, Superintendent,
Pontiac Public Schools, Pontiac, Mich.:*

"A teacher may be absent for certified illness during any one school year, not to exceed ten days, without loss of pay. Teachers not absent

may accumulate the unused portion of the ten days up to a total not to exceed fifty days. This means that a teacher who has not missed a day for illness or other cause, over a period of three years, will have accumulated thirty days of unused sick leave.

"If, in the fourth year, she should fall seriously ill it would be possible for her to be absent for forty days without loss of pay—ten days for the current year and thirty days accumulated during the preceding three years.

"In case a teacher has been fortunate enough to accumulate a hundred days of unused sick leave, representing ten years of uninterrupted attendance, she may be granted without loss of pay fifty days' leave of absence, representing ten school weeks, for rest, travel or study, but not for gainful occupation."

*J. M. Gwinn, Superintendent,
San Francisco Public Schools, San Francisco:*

"The rules and regulations of the San Francisco Public Schools provide for five full days' pay to teachers who are absent because of illness and ten half days' pay during the school year.

"All recently erected school buildings are provided with a teachers' rest room, a teachers' dining room, a teachers' kitchen. There is also a health service room.

"All applicants for appointment, before they assume their teaching duties, must present a certificate of good health and physical soundness. The examination is given by the health department of San Francisco without cost to the teacher. At present there are no requirements for compulsory health examination of teachers in service.

"The board of education carries a policy in the state compensation insurance fund for the protection of teachers in case of accidents. This includes payment for medical and hospital service as well as compensation for the time lost.

"Teachers absent from school because of quarantine receive pay for the days lost."

*Elmer L. Breckner, Superintendent,
Olympia Public Schools, Olympia, Wash.:*

"We have provided attractive and entirely satisfactory rest rooms for teachers in all of the new buildings of this city. We have also fitted up such rooms in the old buildings as best we could, so that every school building in the city of Olympia to-day affords rest room facilities for teachers.

"Under the law of this state every teacher must present annually a certificate from a registered physician, stating that he or she is free from

tuberculosis or any other communicable disease. In addition to this our supervisor of health, who is a qualified teacher and a registered nurse, counsels teachers regarding their health and physical welfare. She frequently gives first aid treatment to teachers and also advises them regarding medical attention.

"Provision is also made in this city to pay teachers during temporary illness. They are allowed five days' sick leave on full pay and ten additional days on half pay."

*M. H. Moore, Superintendent,
Fort Worth Public Schools, Fort Worth, Texas:*

"All of the new schools that have been built in Fort Worth in recent years have had rest rooms provided for the teachers. These rest rooms are attractively furnished and contain every facility for privacy and rest.

"The health department of the Fort Worth Public Schools gives all teachers a health examination at least once a year both for their information and for the information of the board of education.

"Teachers are given half pay for ten days in case of personal illness and are allowed a week's absence with full pay in case of death in the immediate family."

*Walter L. Bachrodt, Superintendent,
San Jose Public Schools, San Jose, Calif.:*

"The 562 employees of the San Jose School Department do not have periodical health examinations. Our only health examination comes with entrance. A doctor's certificate from our school physician is necessary for the election of a new teacher, but no health examination is given after that period. Every school in the city has a rest room for teachers. We have made every effort to provide facilities for relaxation and facilities for supplying hot food. These rest rooms, of course, vary. Some have been decorated and built up by the teachers themselves.

"The theory of the San Jose School Department is not to give the teachers five or ten days' sick leave a year, but rather to aid the teacher who is out for a period of time because of illness. The teacher who is absent for only a few days during a month loses what it costs us to pay a substitute, which is not nearly so much as the teacher's actual salary. Any teacher who is out for one or more months receives a flat salary of \$50 a month, and no deduction is made from her summer salary. We have at the present time three teachers absent from the department who theoretically contacted with the school by teaching one day; and from the school department

two of these teachers will draw \$834 this year for one day's service and one of them will draw \$950.

"The teachers have a mutual aid society which brings them small money benefits during illness, and approximately 75 per cent of the teachers have taken out group insurance for protection against sickness.

"The California law dealing with employers' liability is a very adequate law. The San Jose School Department takes out insurance under this law, which protects the teachers from accidents and the hazards of their vocation. We have had several rulings that contagious disease contracted within the schoolroom constitutes one of the hazards of occupation. This means free medical care for the teacher plus \$21.20 a week after ten days, which, together with the \$50 the teacher receives from the school department, makes fairly adequate protection."

*John R. Wilson, Superintendent,
Public Instruction, Paterson, N. J.:*

"Plans for the protection of the health of teachers in the Paterson schools include the following:

"There is a rest room for teachers in every building in the city, and in nearly every building the rest room is a very satisfactory room.

"We have no plans here for periodical health examinations of teachers.

"There is adequate provision for the continuation of salary during temporary illness.

"Salary deductions for absence because of illness up to a period of sixty school days are limited to \$2.50 a day.

"We have no plans for medical examination and treatment.

"Teachers are on duty for full time during the school day. There is, of course, some relaxation at recess periods and at the time of change of classes."

*E. G. Lange, Superintendent,
Delavan Public Schools, Delavan, Wis.:*

"We have three rest rooms for teachers in our two buildings. Two of these are fitted with lavatories and toilets. One has a comfortable bed and chairs and tables. The third room has simply chairs and tables.

"Our teachers also have the interest and counsel of an experienced full-time graduate nurse who has available a special room and complete equipment.

"Our school health department offers free individual service at two clinics each year. One is under the direction of five local physicians who

give the examinations and the other is under the direction of physicians coming from the state health department.

"Our full-time woman instructor in charge of physical education and our home economics teacher cooperate with the school and county nurses in aiding along the line of physical well-being such as play, exercise and diet. Hot lunch and milk are available at school.

"We allow our teachers full pay for five days of absence during the year because of sickness or because of the death of a relative in the immediate family. Half pay is allowed for five days beyond the first five with loss of all salary beyond these ten days."

*Otto W. Haisley, Superintendent,
Ann Arbor Public Schools, Ann Arbor, Mich.:*

"In March, 1927, the board of education of the Ann Arbor public-school system made provision for an accumulative sick leave and sabbatical leave of absence for teachers in the public schools of this city. Those provisions are here set forth.

"Plan for sick leave: Ten days each year is granted to each full-time member of the teaching, administrative, supervisory and library force of the Ann Arbor schools for personal illness of such nature as to render member unfit for service; quarantine of member; critical illness of one of the immediate family of member; death of one of the immediate family of member.

"At the end of each year such unused portion of the ten days shall become accumulative and may be used by member at some subsequent time if need be for the above purposes. An accumulation not to exceed ninety-five days may be built up in this manner.

"Plan for sabbatical leave of absence:

"Whereas, a sabbatical leave of absence granted to teachers for study and self-improvement is no longer an experiment, being used in colleges, universities, normal schools and many of the progressive public-school systems of the country, and

"Whereas, a sabbatical leave would stimulate the achievement of that high professional skill and intellectual attainment particularly demanded of the teaching and library force in Ann Arbor, and

"Whereas, a plan for a sabbatical leave would attract to the Ann Arbor School System teachers, both men and women, of exemplary character, of unusual intellectual tastes and of proved teaching ability, and

"Whereas, a plan for a sabbatical leave would tend to stabilize the teaching force of the Ann Arbor schools by reducing the turnover, and

"Whereas, a plan for a sabbatical leave would

make it possible for teachers better to fit themselves for a higher type of educational service for the Ann Arbor schools,

"Therefore, be it resolved that this board of education adopt a plan for a sabbatical leave with the following conditions:

"A leave of absence may be granted to any member of the teaching, administrative, supervisory or library staff for study or travel after seven or more consecutive years of successful service in the Ann Arbor Public Schools. For each subsequent seven-year period of service or more such leave of absence may be used for study, travel or restoration of health.

Salary Arrangements

"A leave of absence shall normally extend over a one-year period but it may by mutual agreement between the applicant and the superintendent of schools extend over a half-year period. For a leave of one year, one-half of the regular salary shall be paid. For a leave of one-half year full salary shall be paid. Salary computations shall be based upon the regular salary for the year during which leave is taken.

"Regular annual salary increments shall be given for time of leave, the same as for regular services in the school. Also, time shall count as regular services toward retirement and full contribution to retirement salary fund shall continue during the period of leave.

"The applicant to whom is granted a leave of absence shall contract to teach in the Ann Arbor schools for a period of three consecutive years. If the teacher on his own volition shall fail to serve the full three-year period then he shall return to the board of education a portion of the salary paid to him during his leave. The amount of salary returned shall bear the same ratio to the salary received during the leave as the unfulfilled term of the contract bears to the contracted three-year period.

"If during the period of leave one engages in remunerative service, then he shall pay to the Ann Arbor board of education all monies so received but not exceeding the salary paid him during such leave.

"Any person to whom has been granted a leave of absence shall have the right to be assigned upon his return to the same position he held before taking leave.

"Application for leave of absence shall be made upon a regular form furnished by the superintendent of schools. Applicant shall agree to abide by all conditions determined upon by the board of education to govern leave of absence.

"Not more than 3 per cent of the group com-

posing the teaching, administrative, supervisory and library force shall be granted leave in any one year. If a larger number than this shall apply, preference shall be given to those longest in the employ of the Ann Arbor District, uninterrupted by a leave of absence.

"Request for leave of absence shall be made in writing to the superintendent of schools by April 1 and November 15 preceding the semester or semesters when the leave of absence is to begin.

"When leave of absence is granted due consideration shall be given to the reasonable and equitable distribution of the applicants among the different schools and among the different departments.

"It will be noted that the first of these plans is to make provision for the teacher who is compelled to be out of school because of illness. The second enactment provides for a leave of absence on pay for the teacher who desires to study or whose health is such as, in the opinion of the board of education, to make it desirable for a leave of absence to be granted.

"In addition, the teachers of the Ann Arbor schools, upon their own initiative, have taken out a group sick and accident policy which provides for the payment of \$25 a week to a teacher who is confined to her own home because of illness, or \$50 a week if she finds that because of such illness it is desirable to go to a hospital.

"Ann Arbor likewise employs a full-time physician who looks after the health of its children and teachers. This school doctor does not act as a physician to any teacher over an extended illness but he is invaluable for advisory and consultation purposes, and is always available to give first aid."

*J. R. Holmes, Superintendent,
Okmulgee City Schools, Okmulgee, Okla.:*

"The following provisions are made to protect the health of teachers in Okmulgee:

"They are required to present themselves once each year to a reputable physician for examination. This examination is a general examination and the result must be such that it will not be injurious to the health of the teacher or of the children for her to continue in school.

"Rest rooms are provided in each school building.

"A fund of \$600 is set aside as a sick leave fund for 150 teachers. Teachers who are absent from school because of illness receive their proportionate part of the \$600, except that if teachers are absent for more than two weeks in succession their absence beyond the two weeks' period is at their own expense. This fund has been

sufficient during the last two or three years to pay the teacher about half of her salary during her absence on account of illness. During the first week of absence the teacher also receives three-fifths of her regular salary and during the second week she receives three-tenths of her salary, so that this, in addition to her proportionate part of the sick leave fund, approximates her regular salary.

"Teachers are urged to leave the school building thirty minutes after the regular dismissal time to take some form of recreation for a while each day."

*R. C. Hall, Superintendent,
Little Rock Public Schools, Little Rock, Ark.:*

"As a protection to the health of the teachers in Little Rock, teachers' rest rooms have been provided in all elementary and high schools. Elementary schools have an hour period at noon, and recess periods in the forenoon and afternoon.

"The load of the high-school teachers is regulated by the requirements of the North Central Association. We pay teachers half salary when sick, limited to twenty days during the year.

"We give teachers a free medical examination once a year."

*Matthew Page Gaffney, Superintendent,
Aberdeen Public Schools, Aberdeen, S. D.:*

"The only unusual feature in our method of protecting the health of teachers is our group insurance which works as follows:

"All the teachers in our system take out group insurance handled through the board of education. The premium is \$20 a year of which the teacher pays \$10 and the board, \$10. As a result of this insurance, the insurance company pays to the board of education \$5 a day for every teaching day that a teacher is absent because of illness. This pays the board for a substitute for that day.

"As for the teacher, she receives her full salary for the first ten days of absence and 60 per cent of her salary for the remaining days of her absence. The insurance company deals directly with the board and the board pays the salary to the teacher."

*F. M. Longanecker, Superintendent,
Racine Public Schools, Racine, Wis.:*

"In the buildings we have built in the last decade rest rooms for teachers have been provided. These all have toilet facilities and are equipped with suitable furniture. In all of the elementary buildings and even in the older buildings, teachers' rest rooms are provided.

"We do not have periodic health examinations of teachers. The matter has been discussed but no action has ever been taken.

"Our ruling regarding salary during temporary illness is as follows: 'A teacher absent on account of personal illness, or on account of serious illness or death in his or her immediate family, shall be allowed full pay for a total of not more than ten school days, except that for absence on account of death in the immediate family the allowance shall not extend beyond one day after the funeral. The immediate family shall be interpreted to mean father, mother, grandfather, grandmother, child, grandchild, brother, sister, husband or wife. In addition to the ten days, a teacher shall be allowed half pay for absence for personal illness for a period of not more than ten days.'"

*Susan M. Dorsey, Superintendent,
Los Angeles City Schools, Los Angeles:*

"Methods by which the health of teachers is safeguarded and promoted in the Los Angeles City School System are:

"Every teacher entering our system is given a free medical examination. Not every teacher is excluded who shows some slight deviation from perfect health; such teachers are watched for a time and given an opportunity to correct the difficulty that promises to interfere with their best work.

"All teachers are allowed an absence of ten days for illness on half pay; all teachers are given full pay who are absent because of quarantine.

"Comfortable rest rooms are provided in all of our schools; the only exception to this is in the tiny country school of one or two rooms where we are unable, because of construction difficulties, to arrange for a rest room. Frequently these rest rooms are furnished attractively by the parent-teacher associations of the several schools; they are always provided with comfortable furniture by the board of education.

"When I tell you that, in the nine years of my superintendency, the average daily attendance in our schools has increased 160 per cent, you will understand that to have achieved these rest rooms in a tremendous and a tremendously expensive building program has been somewhat of a trial.

"We do not require the periodical health examinations of teachers. However, we require any teacher whose health we regard as in any way a menace to our schools to take an examination, and all teachers returning from leaves of absence must be examined before they are received again into the schools."

One School—One Faculty—Two Complete School Plants

Boys of the Moran Junior College and Preparatory School divide their time between Atascadero, at the base of the Santa Lucia Mountains in California, and the Puget Sound Region in Washington

BY T. F. ELWELL, REGISTRAR, MORAN SCHOOL FOR BOYS

TO THE boys and girls of to-day it seems a long, long time ago that grandfather attended the little red schoolhouse on the side of the hill. Although it was not so many years ago, at that, these modern boys and girls can scarcely visualize the one-room schoolhouse of their grandfather's time.

What a change there has been in school buildings and equipment since then! Children now attend brick and concrete buildings whose cost runs into millions of dollars. School buildings are supplied with the latest and best possible equipment for training young men and women to take up the responsibilities of life after they finish school. While grandfather had to get much of his experi-

ence as an errand boy for the corner grocery or as an apprentice in the blacksmith shop, his grandson to-day learns electrical, mechanical, industrial or commercial subjects in his school course; or he may select music, dramatics, public speaking or art as his major pursuit in school. Schools are ever growing, ever progressing, ever studying ways and means to provide better training for the boys and girls of the communities they serve.

One school for boys in the West, the Moran Junior College and Preparatory School, has two fully equipped school plants for the same student body. The fall semester is spent in southern California and the spring semester is spent in



The administration building at the Bainbridge Island branch.



The setting of Moran is typically Western. In the background of the campus is a forest of towering firs and cedars and in the immediate foreground is Puget Sound.

the Puget Sound region in Washington. The fall semester is held at Atascadero on the Coast Highway, about half way between San Francisco and Los Angeles. Atascadero is at the base of the Santa Lucia Mountains, in San Luis Obispo County, a territory once ruled by lordly Spanish dons.

Large concrete buildings faced with brick open on a parklike campus of lawns, shrubs, flowers, statuary and fountains. At night the campus is brightly lighted, and powerful searchlights on the roof garden of one of the buildings illuminate the huge dome of the assembly building, causing it to gleam out as a great mosque in the quiet, secluded

valley lying below.

The assembly building has four floors, with an electric elevator leading to the dining room in the dome of the building. The classrooms and offices are on the first floor, dormitory rooms are on the second and third floors, and the kitchen, maids' apartments and dining room are on the fourth floor. A large assembly hall is on the first floor of the building. This hall also contains the school library. The dining room, in the dome, has a huge crystal chandelier in the center and a subdued indirect lighting effect is produced in the upper part of the dome. The dining room is fifty feet from the top of the dome to the floor. The sun lounge is entered from the dining room. This lounge room leads by French doors to the roof garden.

The recreation building runs north and south on the campus. In a large addition facing east is a swimming pool, twenty-five by fifty feet, complete in every respect, with filter vacuum appliances for cleaning the bottom of the pool without disturbing the water. Showers, toilets and locker rooms adjoin the pool. Entrance to the pool is through a water pit six inches deep and five feet wide. This assures a clean swimming pool room.

The gymnasium is spacious and modern. Light and air from two sides, with a cross air circulation through the swimming pool, promote good ventilation. Access directly from the outside to the spectators' gallery makes it possible to keep

the public off the gymnasium floor. The gymnasium is steel trussed, with a clearance of twenty feet from the bottom of the truss to the bottom of the floor. The floor is of oak, tongue grooved, and is splendidly finished. The windows and lights are all protected with grills. Skylights flood the gymnasium with sunlight during the day. Through a window that opens from his office into the gymnasium, the physical director may supervise activities in the gymnasium. There is a fully equipped physical examination room. There is also a locker room for the teachers.

Other rooms in the recreation building house a shop for the barber and tailor, and a workshop for the boys. To the right as one enters the building is a recreation room, with four pool tables, two billiard tables and tables for checkers and chess. The upper floors have eleven double dormitory rooms for the junior-college students and their faculty supervisors.

A third building, known as Hillside, is not being used by the school this year, but has been leased by San Luis Obispo County for use as a hospital building.

Dormitory rooms in all of the buildings have hot and cold water in every room, good closets, steam heat and attractive furniture. Two boys occupy a room.

Food for the boys is prepared in a modern kitchen. Electric ranges, electric bake ovens,

electric mixing machines and dishwashing machines, and two ice boxes with the newest type of refrigeration are a part of the equipment used in the kitchen.

The playfield, to the rear of the assembly building, provides for two football fields and a quarter-mile cinder track with a 230-yard straightaway. Inside the oval are three hard surfaced tennis courts, with galvanized pipe standards and lines set into a white cement so that they are always there. Three other tennis courts are outside the oval. Circling around the entire campus is a nine-hole, all-green golf course. A short distance from the campus is a stable of fifty horses on



The terraced lawns, trees, shrubbery and flowers add greatly to the appearance of the beautiful buildings.



That the boys take their school work seriously is shown by their attitude in the library.

which the boys may journey into the hills above the school or out to the ocean, eighteen miles away.

The boys, who range in age from ten to twenty years, are at the Atascadero school for the first semester, from September 4 to December 20. The Easter holiday period has been merged with the Christmas vacation, making just the one break in the school year. On January 21, following the month of vacation at Christmas, the faculty and boys go directly from their homes to the Bainbridge Island branch of the Moran School for Boys, Moran School, Washington.

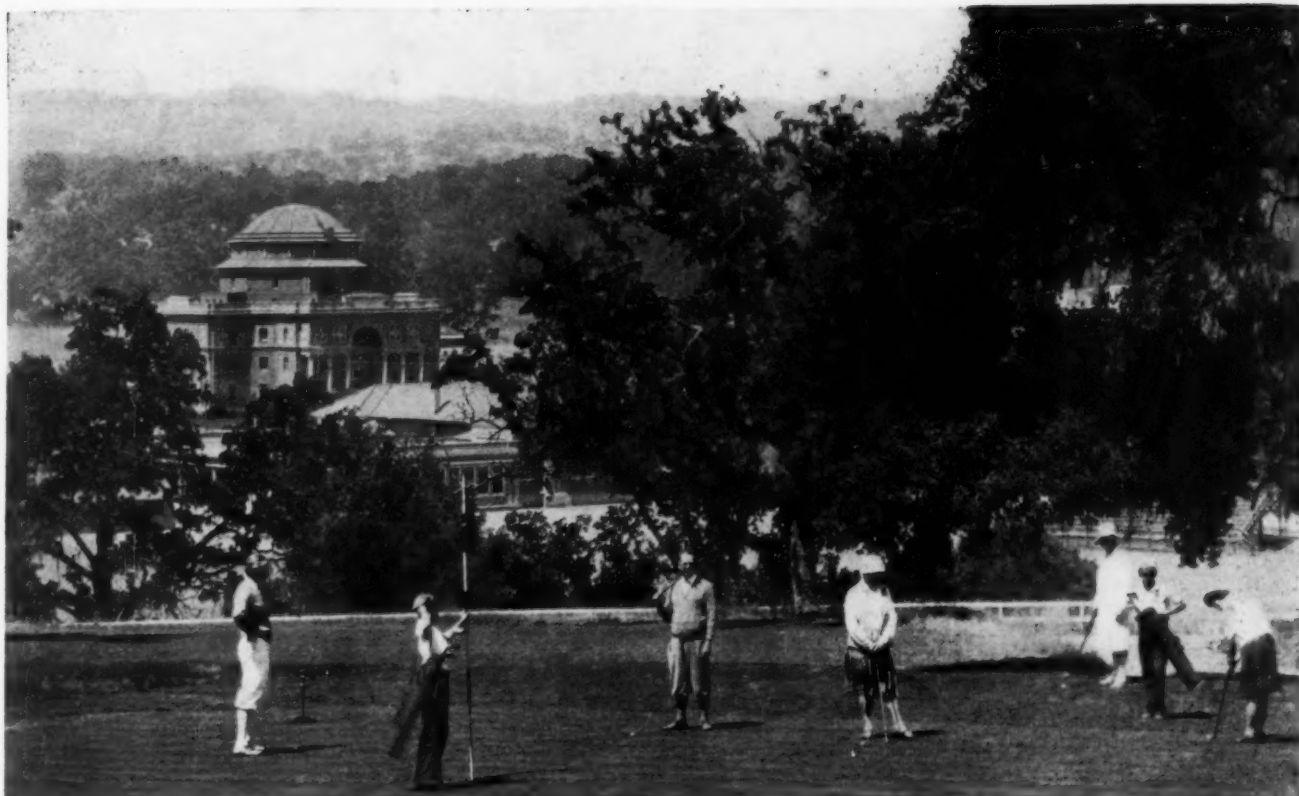
The school in Washington is no less elaborate than the school in



But all the work is not so serious, as can be seen in the above illustration.

California, yet the two plants are entirely different in architecture and beauty. The California school, in the sunny South, and the Bainbridge Island school, in the invigorating Northwest, offer Moran students an unusually healthy and attractive program.

The three large white stucco buildings of the school on Bainbridge Island are in the southern Italian type of architecture. The school property runs up from the beach on Puget Sound to a point, almost a half-mile away, used for the athletic field. The campus is landscaped in the foreground, and in the background is a virgin forest of tall firs, cedars, maples and hemlocks.



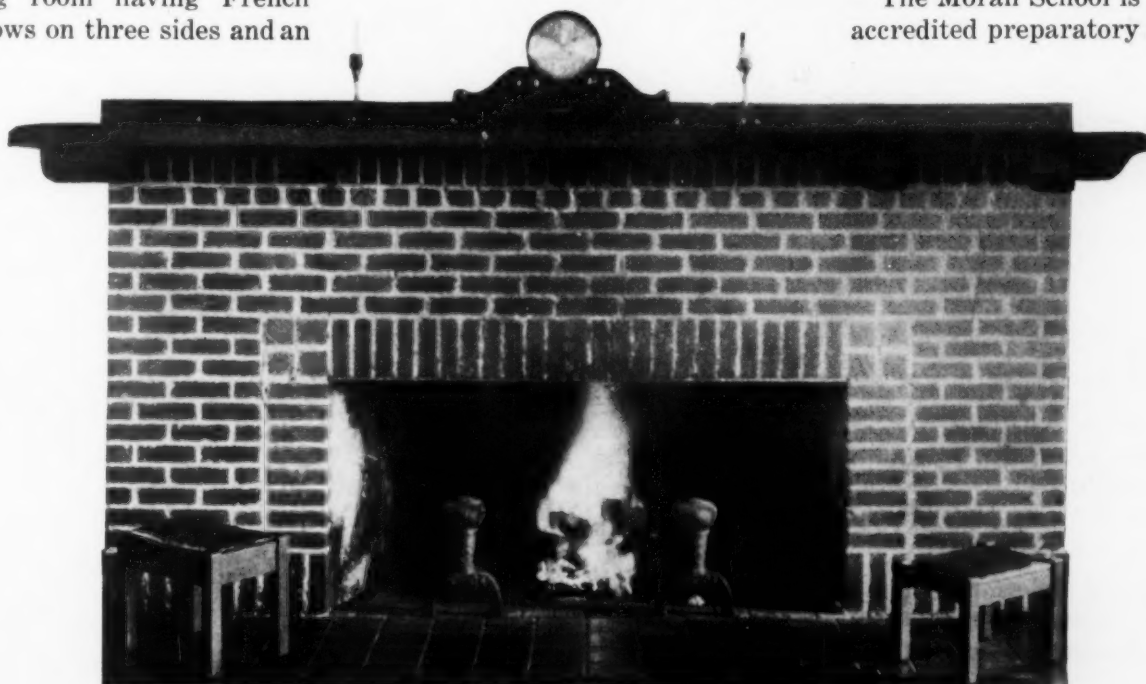
A scene on the nine-hole golf course at the California school.

Wilson Hall, a two-story building on the beach, has thirty double dormitory rooms. Yates Hall, at the top of the hill, houses fifteen double dormitory rooms on the top floor, nine classrooms and a library on the second floor, the business office, post office and motion picture projection booth on the mezzanine floor and the school auditorium on the first floor. The main building, in the center of the quadrangle, contains a roomy dining room having French windows on three sides and an

entrance to the electric kitchen on the fourth side. The second floor provides guest rooms, a huge lounge room and a run room. The top floor houses the junior-college dormitory.

Frank G. Moran, who founded the school fifteen years ago, is president and headmaster of the institution. He has devoted more than twenty-five years to work with boys, in camps, Y. M. C. A., Hi-Y groups and activity clubs.

The Moran School is a fully accredited preparatory school.



How Fordson Spends Its Money for Education

An examination of current school costs, the important factors influencing these costs and the possibility of bringing them under further control

By VERNON E. CHASE, DIRECTOR, BUREAU OF RESEARCH AND STATISTICS, FORDSON PUBLIC SCHOOLS, FORDSON, MICH.

THE distribution of the budget appropriations of the Fordson Public Schools, Fordson, Mich., for the year 1927-28 is shown in Table I, Columns II and III. This table shows that the two largest items of current expense are those of instruction and plant operation. Of the money appropriated for current expenses 67.3 per cent was for instruction and 15.9 per cent for operation of the school plant.

Columns IV and V of Table I show how money was actually expended from July 12, 1927, to January 31, 1928. It will be seen that the ratio of expenditures approximated closely the ratio of appropriations for the first half year.

Diagram 1 shows the distribution of current expenses of the Fordson Public Schools compared

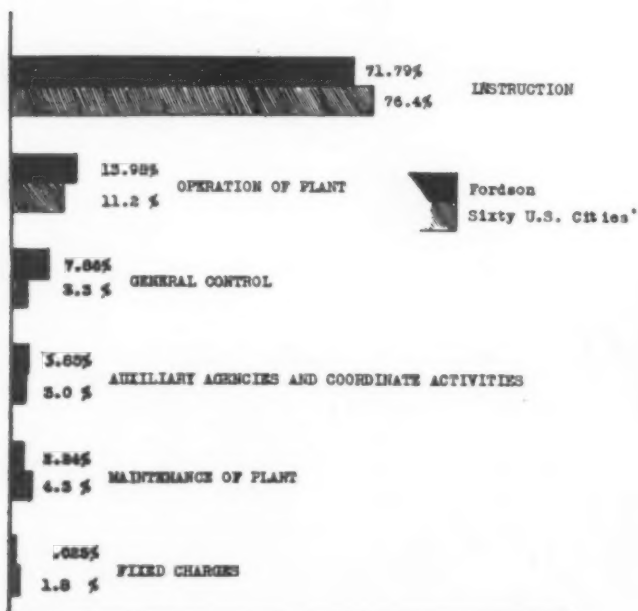


Diagram 1.

with the average for sixty cities in the United States with populations ranging from 30,000 to 100,000, for the year 1925-26, the last year for which government statistics are available.

Diagram 2 shows the percentage of fluctuation in various school costs for three successive years. There has been during these years a relative de-

cline in the cost of operation of the plant, general control and maintenance.

The condition with respect to the principal item, instruction, has not been so stable but the general tendency appears to be upward. Such tendencies are favorable and the board of education is justified in taking such steps as may be necessary to accelerate them until the point of

I	II Amount Appropriated	III %	IV Amount Expended	V %
General Control	\$ 47,235.00	.071	\$ 26,513.56	.074
Instruction	443,375.00	.673	239,641.19	.674
Operation	105,000.00	.159	55,646.56	.157
Maintenance	9,500.00	.014	6,097.92	.017
Coordinate Activities	27,090.00	.041	14,192.37	.040
Auxiliary Agencies	20,829.75	.031	11,503.02	.032
Fixed Charges	5,000.00	.007	1,255.38	.003
Total	\$558,029.75	.996	\$353,850.00	.997

Table I.

maximum efficiency in this respect is reached.

Undoubtedly the pupils who attend school are the most important single factor in determining school costs. An increasing membership means that additional teachers, additional supplies and additional plant facilities must be supplied without delay. An analysis of school membership conditions is therefore important in any attempt to estimate the financial needs of a school system.

School	Elem.		Jun. High		Sen. High		Total	
	1927	1928	1927	1928	1927	1928	1927	1928
Wm. Ford	150	165	845	941	149		1144	1006
Miller	99	98	762	915	246	126	1233	1028
Robert Oakman		81	328					409
Reulo	32	38	300	277			332	328
Thayer	32	62	403	303	68		523	365
Salina	28	117	343	457	125	218	516	844
Fordson High					721	177		898
Total	341	561	2653	3121	608	939	3766	4876

Table II.

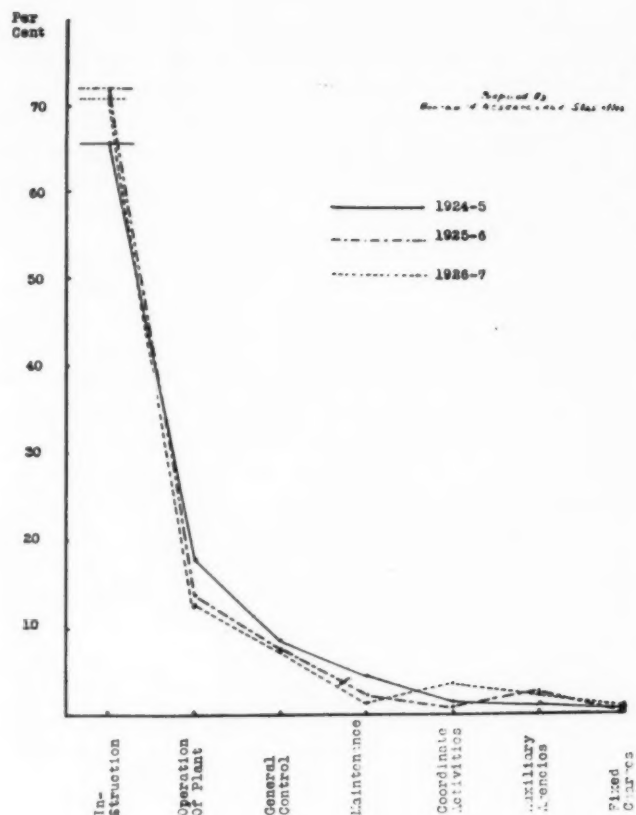


Diagram 2.

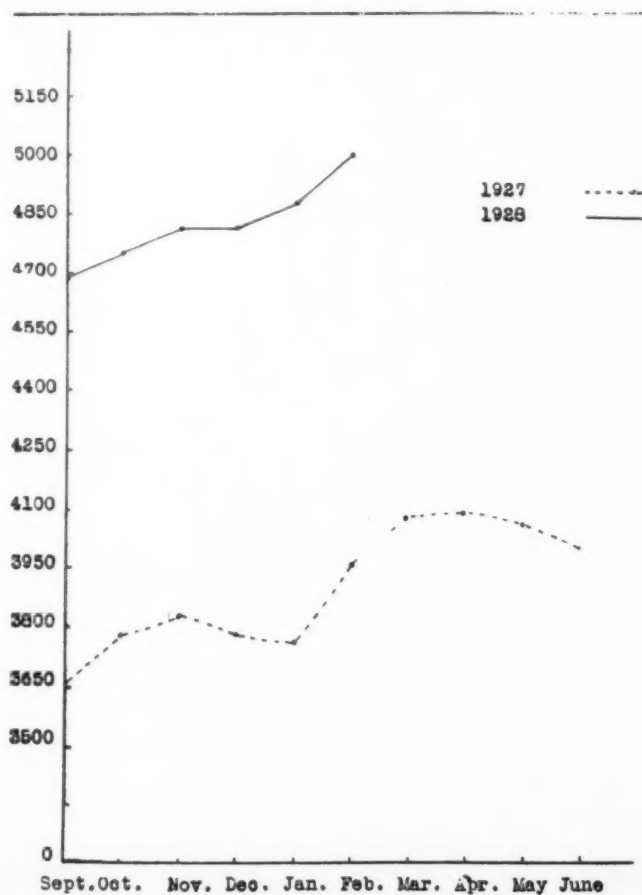


Diagram 3.

Diagram 3 shows the increase in membership, month by month, beginning with September, 1927, the earliest date for which monthly membership reports are available. There was an average monthly increase during 1926-27 of 1.02 per cent, and for the first six months of 1927-28 the monthly increase averaged 1.3 per cent. During the summer vacation there was an increase of 13.6 per cent.

Table II shows the membership by schools. Growth by schools cannot well be shown at this time owing to the large number of transfers to the new high school.

Growth in membership from January 28, 1927,

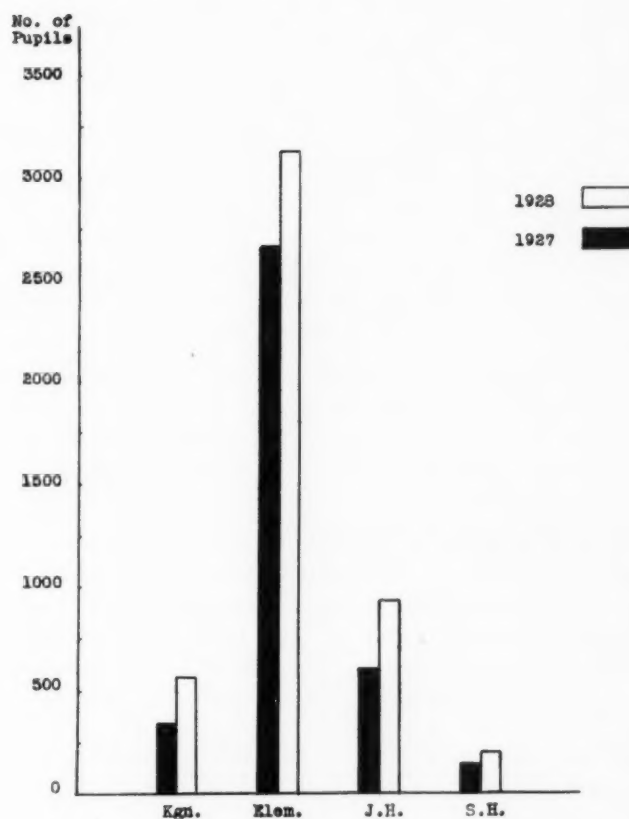


Diagram 4.

to January 27, 1928, may best be understood by referring to Diagrams 4 and 5. Diagram 4 shows the growth in membership for the kindergarten, elementary grades, junior high school and senior high school. It will be seen that the largest membership is in the elementary grades, one to six. In fact 64.6 per cent of the total school membership is in these grades. About 20 per cent of the total school membership is in the junior high school and 11.5 per cent in the kindergarten.

It might be inferred from Diagram 4 that the greatest increase is taking place in the elementary grades, one to six. This however is not the case, as will be seen by examining Diagram 5 which shows the percentage of increase by departments.

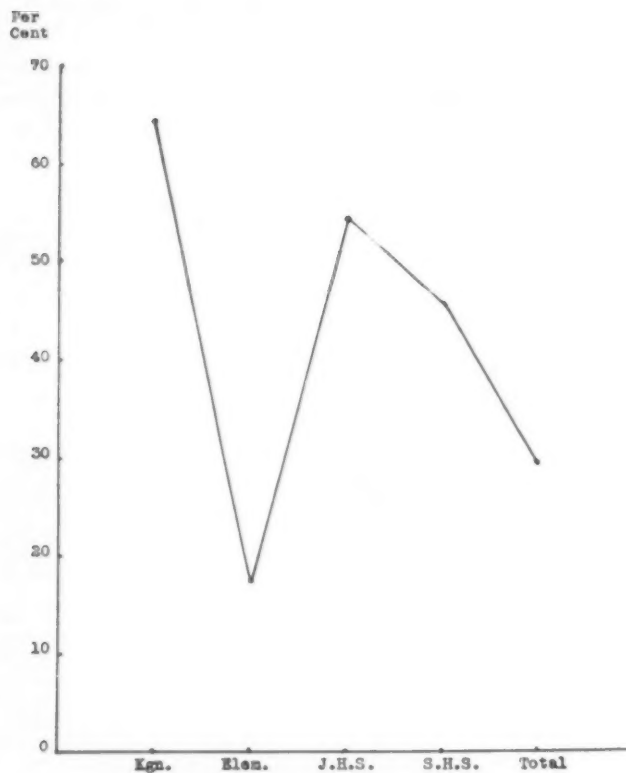


Diagram 5.

This diagram shows that the greatest increase in membership is taking place in the kindergarten where an increase of 64.5 per cent was experienced during the period in question. The next highest increase was in the junior high school where there was a 54.4 per cent increase. A 45.9 per cent increase was experienced in the senior high school, while the smallest increase was in the elementary grades which had the highest actual membership.

Table III shows the per capita cost by schools

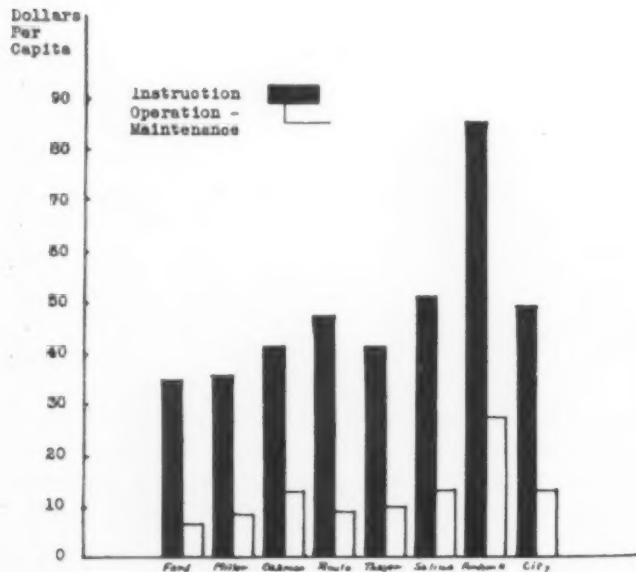


Diagram 6.

for the two main items of cost. It will be seen that for the period July 12, 1927, to January 31, 1928, per capita costs ranged from \$34.40 in the Wm. Ford School to \$85.40 in Fordson High School.

Other things being equal per capita costs vary inversely with the pupil-teacher ratio. The pupil-teacher ratio is the average number of pupils in membership per teacher employed. The pupil-teacher ratio is shown by schools in Diagram 8. The ratio varies from 14.6 in the Fordson High School to 26.7 in the Miller School. By comparing Diagrams 8 and 6 the negative correlation existing between per capita costs and pupil-teacher ratio will readily be seen. For instance, Wm. Ford School and Miller School, which show the highest pupil-teacher ratio have the lowest per capita cost and Fordson High School with the

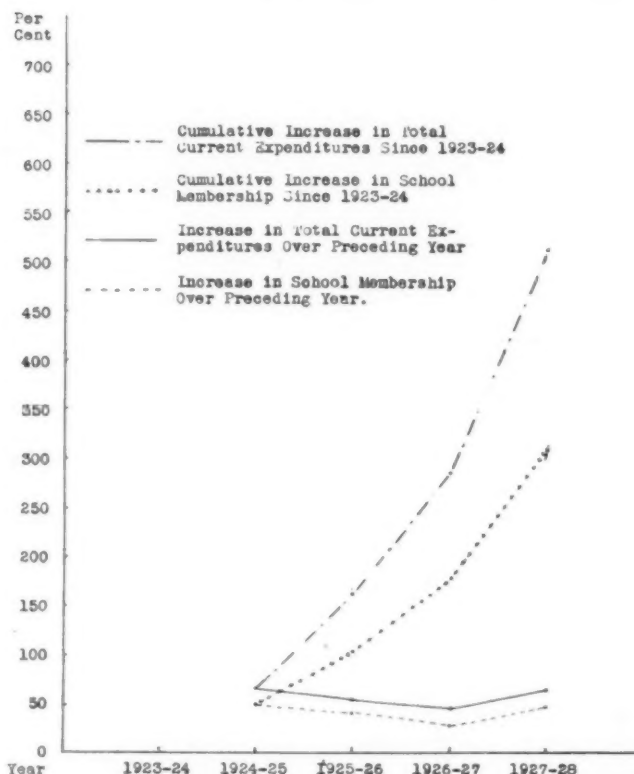


Diagram 7.

lowest pupil-teacher ratio shows the highest per capita cost.

Diagram 7 shows the percentage of increase in membership and the percentage of increase in current expenses, year by year since 1923-24. This diagram shows that the percentage of increase in membership has varied from 29.6 per cent in 1926-27 to 50.4 per cent in 1924-25, while current expenditures have varied from 47.3 per cent increase in 1926-27 to 67.4 per cent increase in 1924-25.

The cumulative effect of this difference is reflected by the upward curves as shown in Dia-

FORDSON PUBLIC SCHOOLS

School	Member-ship ¹	Per Cent Of Total Membership	Expense For Instruction ²	Per Capita Cost Inst.	Expense Operation & Main. ²	Per Capita Cost Oper. & Main.
Wm. Ford	1006	30.6	34661.94	34.4	6590.20	6.55
Miller	1028	31.	36601.62	35.7	6365.53	6.15
Oakman	409	8.3	16990.84	41.8	4770.67	11.66
Roulo	326	6.7	15685.99	47.8	3145.33	9.59
Thayer	265	7.5	15182.54	41.8	3628.56	9.94
Salina	644	17.3	42698.04	50.5	9937.40	11.77
Fordson H.	998	19.4	76691.42	65.4	25020.44	27.86
Total	4678		236631.19	48.9	61478.13	12.60

Table III.

gram 7. These curves show an increasing difference between current expenses and growth in membership. Such differences may be due to increasing demands upon the schools, to an increase in the amount and quality of service offered by the schools or to other reasons that can be definitely ascertained only through further investigation of the administrative and functional organization of the system.

The results of this survey of current school costs prompt the following recommendations: (1) That a detailed analysis of cost of instruction,

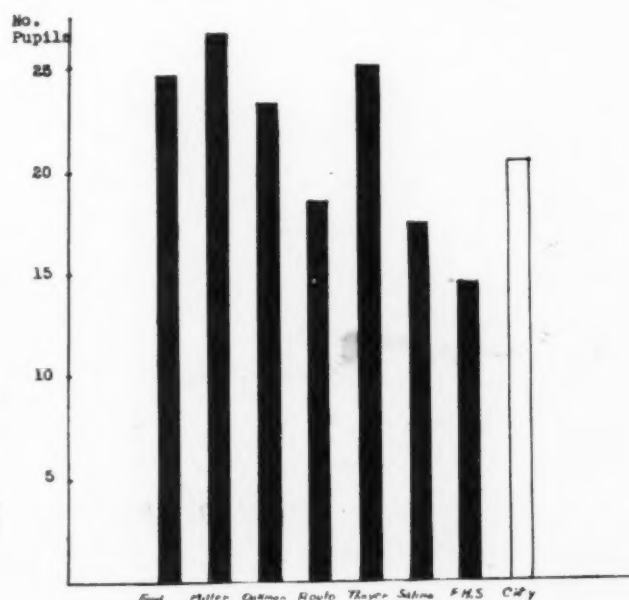


Diagram 8.

operation and general control be made in the near future; (2) that an examination of per capita costs be made to determine the causes for the wide variations between schools, especially in operation and maintenance; (3) that the desirability of increasing the pupil-teacher ratio be carefully considered from the standpoint of increased efficiency and economy.

Why Not a Passing Grade of 100 in Schools and Colleges?

Why not make one hundred the passing grade instead of seventy-five which is now so universally the rule in the schools and colleges all over the country?

This is the question asked by Dr. F. B. Pearson, formerly state superintendent of public instruction in Ohio, in an article in the *Ohio Teacher*. Dr. Pearson continues:

The seventy-five per cent standard was doubtless conceived as the minimum, but the mental operations of human beings are such that the minimum soon becomes the maximum in their thinking. If seventy-five is enough, why should they strive for more? If a pupil learns only three-fourths of long division he will always be a cripple so far as long division is concerned.

If one hundred were proclaimed the passing grade there would obviously be far more one-hundred per cent pupils. For in that case one hundred would be the minimum, and the minimum is always a fascinating objective as witness the practice of workers in shops, factories and offices who appropriate ten minutes of the final working hour to wash up and change so as to be ready to leave on the stroke of the clock.

If one hundred were made the passing grade it is a safe conjecture that the number who would win this grade would be almost, if not quite, equal to the number who now make the passing grade of seventy-five.

Business is conducted upon a basis of one hundred per cent and graduates of schools and colleges must revise their seventy-five per cent thinking when the time comes for them to enter the marts of trade.

How One County Superintendent Plans for Convocation

A successful plan for convocation and general assembly for all of the high schools of Clay County, Indiana is again in operation. The plan was first tried out last year. Once each month Superintendent J. Riley McCullough arranges for some speaker of note to make a two-day tour with him, visiting each of the county high schools. A convocation or general assembly meeting of pupils of the seventh and eighth grades and high school is held and the speaker usually addresses the group for about thirty minutes. Leaders in the affairs of church, state, business and industry are chosen for the tours, and a profitable experience is afforded to the boys and girls.

School Noises and How to Minimize Them

Ear strain is as nerve racking as eye strain and accuracy of mental processes is attained with difficulty when the ear drums are assailed. Sound control is therefore important in school designing

By DONALD A. LAIRD, DIRECTOR, COLGATE PSYCHOLOGICAL LABORATORY, HAMILTON, N. Y.

NOISE not only menaces educational results but strikes deeply into human welfare. In consequence of the menace to health that lurks in noise and because of the increasing activities of organizations of physicians for quieter living and working conditions, it is possible that future public health regulations may demand adherence to the practical points of building and equipping schools that we shall discuss here, one by one.

With the exception of the sounds arising from shop work, music, public speaking and cafeterias, public schools generate little noise. It is therefore from outside noises, arising from traffic, factories, railroads and building activities, that the school needs principally to be guarded. Care in

selecting the site and a perpetual protection of the site by zoning restrictions are sensible preliminary measures in a school building program, and the following are suggestions for the satisfactory development of the program:

The school building should be at least two city blocks from trolley lines and highway arteries. It should be at least two blocks from a factory, garage or warehouse. The site should be large enough to permit a border of campus at least 100 feet deep between curb lines and building lines. The intensity of noise decreases rapidly with distance and the open air is the most perfect sound absorbent known.

The height of buildings on the streets bordering the school should be limited to three stories.



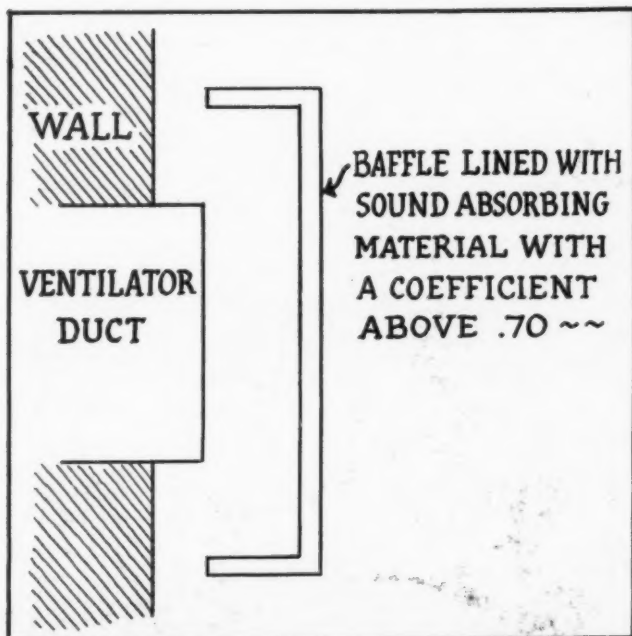
Sound absorbing material has been placed between the beams of the ceiling in the main dining room at Notre Dame University, South Bend, Ind.



The sound absorbing material in the ceiling of the gymnasium at Royal Oak High School, Royal Oak, Mich., prevents the spread of noise to other parts of the building.

Tall buildings reflect sound from the street toward the school.

Railroad and factory whistles within a certain distance of the school should be altered in tone and intensity so that they will not be disturbing.



How the spread of noise through ventilators can be cut down.

The streets around the school property should be paved with asphalt or concrete, and they should be maintained in perfect smoothness at all times to avoid increasing traffic noises. Brick paving intensifies traffic noise.

Truck and commercial traffic should be routed away from the streets surrounding the school.

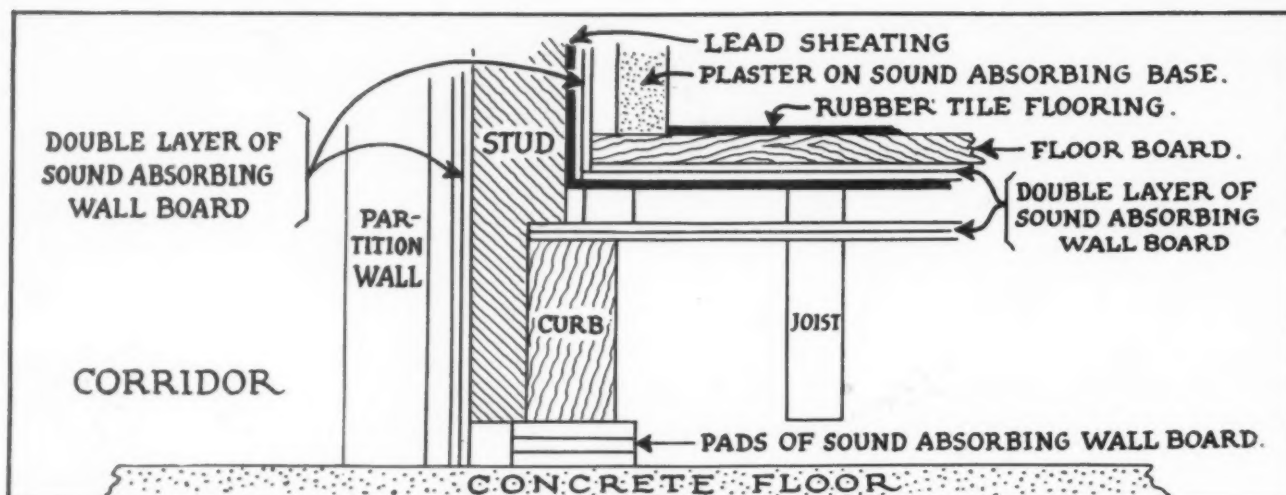
A heavy planting of tall trees along the curb line of the school property will act as a partial barrier against street noises. The trees will not absorb appreciable amounts of noise but they will help to prevent the spread of street noises.

A level site is preferable, since if the bordering streets have much grade the noise of automobile brakes or gears will be unusually disturbing.

Curved wall surfaces should be avoided to prevent focusing of sounds within the room. Small rooms are less reverberant than larger rooms. Low ceilings make rooms less reverberant.

The supply entrance should be placed so that noise from truck motors and unloading will not enter the building. A blind wall along the supply entrance is desirable.

The cafeteria should be placed so that noise from it does not enter other rooms, especially if primary grades use the cafeteria while other classes are in session.



Construction detail showing how a room can be built so that the noise within cannot be heard in the corridors.

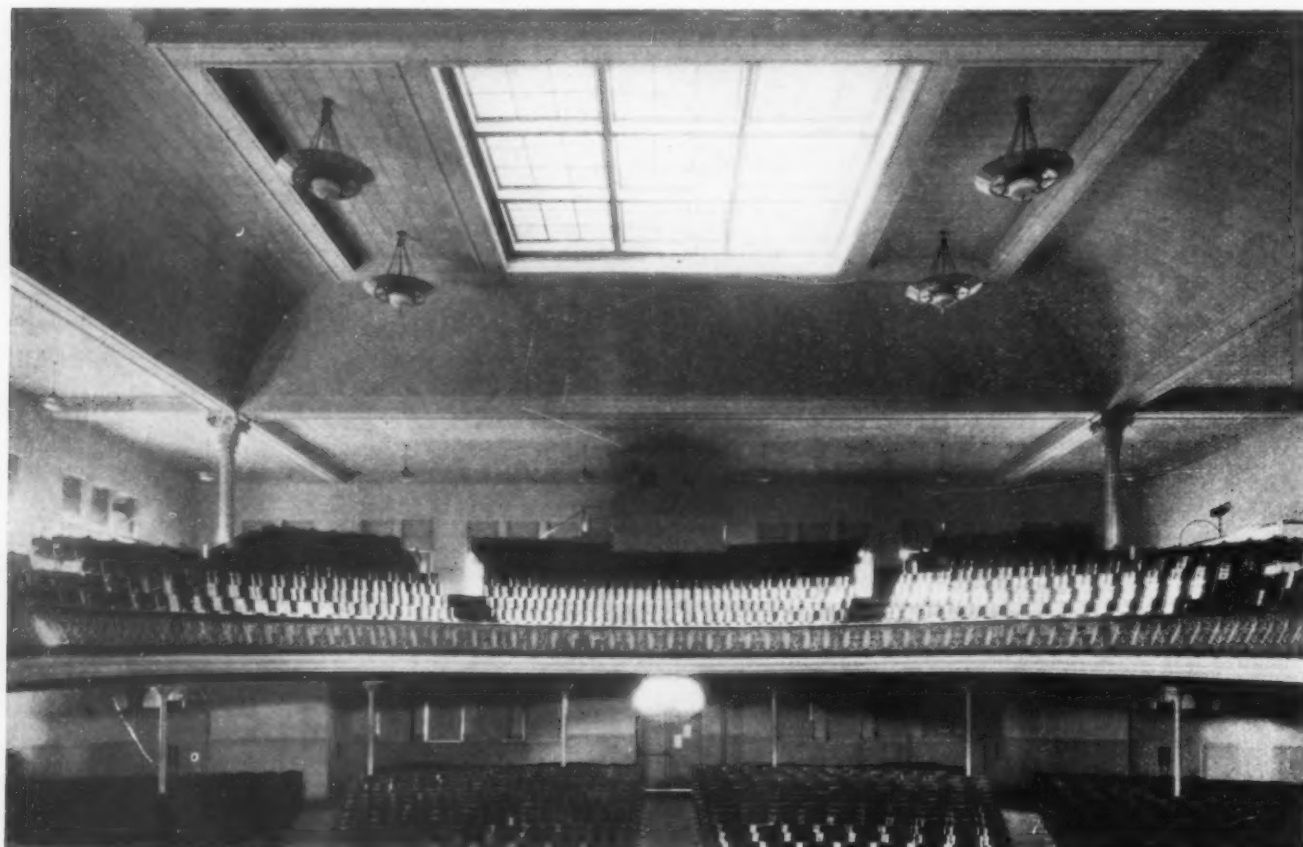
Hallways and exits for grades that are dismissed early should be arranged in such a way that while they are leaving the building the pupils do not disturb other groups. Playgrounds for use during recess periods should be placed so that groups still in session are not disturbed by the shrieking from the playground.

The placing of the manual training shop and gymnasium should be governed by the same considerations as have been named as desirable in connection with the cafeteria and playground.

Long corridors connecting several rooms are undesirable, since they serve as speaking tubes for transmitting noise and are a fire or riot hazard.

Toilet rooms should be hemmed in by janitors' and service rooms so that no embarrassment is caused adjoining classrooms. Special attention should also be given to the rooms that are above and below toilet rooms.

All classroom ceilings should be covered with sound absorbing material with an absorption co-



The assembly hall at Stanford University, Palo Alto, Calif., has sound absorbing material on the coved ceiling areas, two center panels and flat ceiling surfaces.

efficient of at least .50. For auditoriums an acoustical engineer should be engaged to cooperate with the architect in designing the room.

Floor compositions should be such that a leather heel striking them makes no more noise than does a rubber heel on a concrete floor.

Corridor ceilings should be covered with material with a sound absorption coefficient in excess of .50, to prevent a marked speaking tube action.

All partitions should be of heavy construction to prevent transmission of noises from one classroom to another by a diaphragmlike vibration of the wall.

How Noisy Rooms Should Be Treated

A music or typewriting room or any room wherein there will be noise, should be surrounded by a double partition, the one wall not touching the other at any point. Such rooms should have sound absorbing material, with an absorption coefficient in excess of .50, not only on the ceilings but also down about five feet on each side wall. They should be acoustically isolated from rooms above and below by double and separate floors and ceilings.

Hot water heating systems have less clanking than steam systems. The heating contract should contain a clause requiring perpetual service to remove and prevent clanking.

Radiators should be hung from brackets on the heavier outside walls so that they pick up fewer diaphragmlike noise vibrations to transmit through their supply pipes to other rooms.

When outside air is taken into a room for tempering over a heated coil the inside of the tempering box should be lined with noise absorbing material with an absorption coefficient in excess of .70, to filter outside noises that would otherwise enter the room with little reduction.

When forced ventilation or heating is used each room should have a separate duct leading directly from a distant common chamber, to prevent noises being readily communicated from one room to another. Such a distant common chamber should be lined with noise absorbing material, with an absorption coefficient in excess of .70, to prevent further transmission of air and metal borne sounds passing from one room to another.

An acoustical baffle and air spreader should cover the opening of each ventilating or heating duct.

Plate glass should be used in outside windows to cut down the diaphragmlike transfer of outside noises into the room. Heavy plate is much more effective than double glazed windows.

All windows should fit tightly, and should be weather-stripped with felt or rubber. All inte-

rior and outside doors should fit tightly, and should also be weather-stripped with felt or rubber. Double walled doors (panels separated by air space or sound absorbing material) should be used for all interior work.

Water and heating pipes should not be in contact with the floors or walls, and at the points they enter the floors or walls they should be carefully insulated with a tight packing of sound absorbing material.

Machinery, such as ventilator motors, should be mounted upon sound absorbent bases. Especially large or high speed machinery should be mounted upon a special foundation that does not connect at any point (including rock sub-base) with the remainder of the foundations of the building.

There should be a small anteroom and double doors at all entrances to noisy rooms.

Hydraulic door checks should be used, so that doors are closed noiselessly and are always closed, thus preventing the transmission of noise that

HOW DIFFERENT PARTITION CONSTRUCTIONS AFFECT THE TRANSMISSION OF NOISE FROM ONE ROOM TO ANOTHER

(Data from Dr. Paul E. Sabine, Riverbank Laboratories, Geneva, Ill.)

Partition construction	Average reduction factor ¹	Weight per square foot in pounds
4" hollow clay tile, plastered on both sides	3.36	27.0
2" gypsum tile, plastered on both sides	2.95	19.6
1½" solid metal lath and plaster	2.53	13.9
2x4" studs, wood lath and plaster	2.73	18.0
2x4" studs, sound absorbing wall board with coefficient of .20 used as base for plaster on each side.....	3.02	11.5
2x2" double studs, staggered, sound absorbing wall board with coefficient of .20 used as plaster base on each side, and extra sheet hanging loose between the studs.....	4.32	12.2

¹ The higher the average reduction factor the more soundproof the partition.

would offset many of the other precautions. These checks should be adjusted twice a year.

Light pieces of furniture that are to be moved from time to time should be equipped with noiseless gliders. Heavier movable pieces, such as library and cafeteria trucks, should be fitted with silent casters.

Blackboard texture should be standardized and experiments should be made to discover the grade of chalk that is absolutely squeak-proof.

All employees, both on staff and service divisions, should be required to wear shoes having rubber heels.

Bells and other internal signals should be selected for their pleasing qualities rather than for their penetrating power.

Folding seats should be fitted with rubber or felt stops to lessen the banging when they are folded up.

Door hinges, swivel chairs and bearings on folding seats should be oiled once each month as a matter of routine. Any large oil company can give information about the kind of oil to use.

Janitors' dustpans and scrub buckets should have rubber silencers attached to them, so that they will be relatively quiet when striking the floor or wall. Old inner tubes can be used for this purpose.

When window drapes and folding screens are used they should be selected for their sound absorbent qualities. The former should be of heavily shirred velour, and the latter of sound absorbent wall board.

Plush upholstered seats are more sound absorbent than those upholstered in leather.

Experience has shown the following in connection with sound reduction factors:

With an average reduction factor of 2.5, normal speech can be understood quite easily and distinctly though a partition.

With an average reduction factor of 3.0, loud speech can be understood fairly well if conditions are quiet.

With an average reduction factor of 3.5, loud speech is audible, but not easily intelligible under quiet conditions.

With an average reduction factor of 4.0 normal speech is not audible, loud speech can be faintly heard, but not easily understood, and for all practical purposes the partition can be considered soundproof. Separating partitions between apartments should have a reduction factor of about 4.0.

For piano rooms and organ rooms a better partition is sometimes needed. Higher factors than 4.0 are desirable for such cases.

How This Board Aroused Voters to a Need for More School Funds

How a well planned, carefully thought out, concentrated campaign for school funds brought results in Rockford, Ill., is told by Frank A. Jensen, superintendent of the Rockford schools.

Plans to educate the taxpayers to the necessity for voting additional taxes to meet pressing building needs and to pay more adequate salaries to teachers were made in July by the board of education and a committee was appointed to work

with the superintendent in carrying out the plans. One member each from the educational committee, the buildings and grounds committee, the finance committee, the purchasing committee and the superintendent of schools made up this special committee. All methods of procedure, all material used and the entire plan of action were evolved and approved by the special committee.

The first move made was to lay the plan of action before the three newspapers in the city, all of which promised their support and an experienced newswriter was employed to edit copy.

Early in September the committee arranged for a dinner meeting to which were invited thirty persons, each representing different important interests in the city. The problem of school finance was frankly stated and frankly and freely discussed at this meeting. Speakers from this group were chosen to present the problem to various organizations in the city and an intensive campaign was carried on over a period of four weeks in an attempt to carry to the rank and file of the voting public a clear understanding of the school situation. During the last two weeks prior to the election on November 6, the newspapers carried a story each day in addition to several editorials.

Pupils' Aid Enlisted

A week before the election all pupils in the junior and senior high schools were taught the facts concerning the school tax situation and the proposed school tax rate increase. In this way more than 5,000 homes in the city were reached. A bulletin on which were listed nine specific reasons for voting for the increased rate and on which were printed facsimiles of the two school tax ballots showing proper marks in the squares after the "yes," was placed in the hands of every one of the 14,000 children in the city schools with the request that each take it home to his parents. On the day prior to the election, each of the 33,000 registered voters received through the mail a postcard urging that fairness to the children required a "yes" vote on the school tax ballot. During the last three days before the election slides were shown on the screen in each of the ten theaters at each performance. These slides called attention to the special school tax ballots and carried an appeal for a favorable vote.

Results of the election revealed that the taxpayers had raised the total school tax rate from one and three-eighths per cent to two per cent, an increase in the tax rate for the educational fund of from one per cent to one and a half per cent, and in the building fund of from three-eighths to one-half of one per cent.

Index Numbers for School Supply Prices

BY HAROLD F. CLARK, PROFESSOR OF EDUCATION, TEACHERS COLLEGE, COLUMBIA UNIVERSITY, and JOHN GUY FOWLKES, PROFESSOR OF EDUCATION, UNIVERSITY OF WISCONSIN

Supplies dependent on the price of paper will probably decrease while those dependent on metal will remain steady or will rise

THIS is the fifth month an index for school supply prices has appeared in *The Nation's Schools*. In the case of November a sharper decrease was anticipated than actually occurred, but in all other months the index proved dependable as a prophecy of prices of instructional supplies.

Supplies largely dependent upon the price of paper should show a tendency toward lower prices. Paper prices are definitely lower than in the past few months and the best authorities foresee still lower prices of paper. This is due partly to the large stocks of paper on hand and partly to the expansion of the capacities of various plants that are serving the school fields with all varieties of paper.

Instructional supplies largely dependent on the prices of metals will probably be fairly steady

or tend towards rising prices. The same is true of most chemicals and supplies based on textiles.

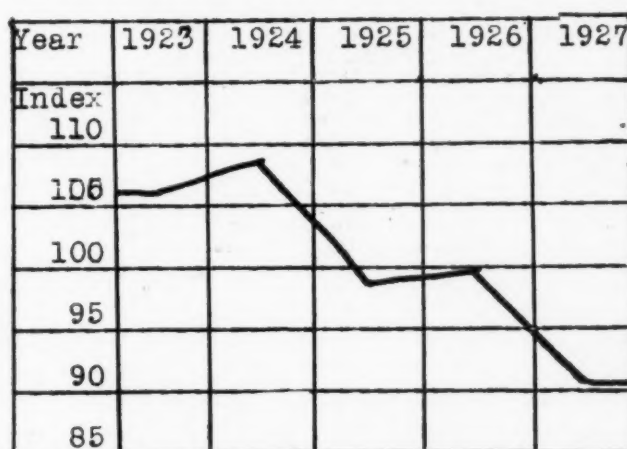


Chart II. Annual index of the prices of instructional supplies.

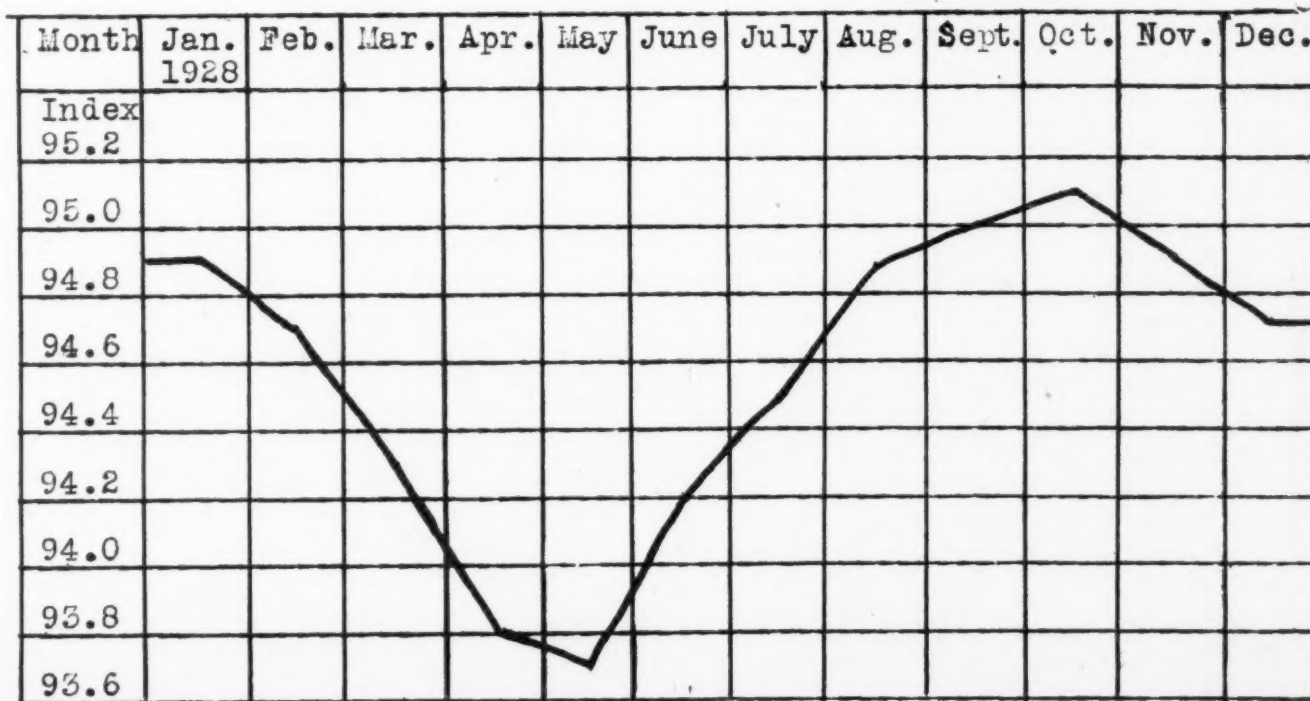


Chart I. Monthly index of prices of instructional school supplies. November and December indexes are not final.

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Editorials

Over the Top—Retrospect and Prospect

WITH this issue, The NATION'S SCHOOLS enters upon its second year. It is well known, of course, that magazines, like children, have difficulty in surviving the first year. If they can make all the needed adjustments during the first twelve months of existence, they stand a chance of surmounting any barriers that may arise thereafter.

The NATION'S SCHOOLS has not only survived its first year, it has come through full of vitality and promise, beyond the hopes and expectations of its most confident and ardent friends and promoters. It has not had the customary hard struggle to keep alive. From the beginning it has enjoyed vigorous health and its continued existence has at no time been problematical. With its first breath it revealed qualities of adaptability and buoyancy that have enabled it easily to fit into the situations found in the educational world and to play a useful and needed rôle in helping superintendents, supervisors, principals, college administrators, headmasters of private and parochial schools, school architects, custodians and all school executives to solve their every-day problems.

Before The NATION'S SCHOOLS was launched the need for such a magazine was investigated in the light of the publications then serving the educational field. Its unusual reception from educators throughout the country offers convincing evidence that the decision to establish the magazine was sound and timely.

The subscription list has steadily increased with each succeeding issue and has already reached a magnitude rarely attained by magazines in our field. Letters of congratulation and of approval have been received by the hundred from leaders in all departments of the public educational system and also in private and parochial schools. The magazine has been commended for its scope, character and quality by public-school and college administrators, by private-school headmasters and by parochial-school officials.

The editors have been agreeably impressed by and many readers have expressed appreciation of the willingness of distinguished educational investigators, authors and administrators to make use of The NATION'S SCHOOLS as a medium for the publication of the results of their research and

their experience. From the moment the plans for this magazine were announced, leading authorities in every field of education responded readily to invitations to make known to the educational world through *The NATION'S SCHOOLS* their findings concerning the solution of problems relating to the building, equipment, administration and supervision of schools and colleges. At once, those who have been playing the chief part in stimulating and directing educational progress in this country recognized that there was a place and an urgent need for a magazine that would interpret and apply data derived from scientific investigation, for the guidance of those charged with the planning, erection and equipment of school buildings, and also for those responsible for the administration of educational systems and the supervision of instruction. The results of important research affecting educational work are usually buried in technical publications so that the superintendent, principal, supervisor and building and equipment expert have gained little from much of the investigation of the past decade.

Covers a Wide Field

Many subscribers have spoken enthusiastically about the editorial and mechanical standards that have been maintained in *The NATION'S SCHOOLS*. Its field of operation has included a discussion of every important matter affecting the physical, intellectual, social and moral training and welfare of the young. School buildings, school equipment, the hygiene of daily programs, the conservation of the health of the teacher as well as of pupils, physical education adapted to changing conditions in American life, vocational guidance based upon accurate analysis of a pupil's natural abilities and social status, the adaptation of educational work to the needs of the new times—these and other problems of similar character have been treated by capable persons in every section of the country in the first twelve numbers of *The NATION'S SCHOOLS*.

Although the publisher and editors are much gratified by the achievements and success of the magazine during its first year, they realize that only a beginning has been made. It may be stated confidently that there will be published during the second year—and the years thereafter—more illuminating and important articles in every department of educational work than appeared during the first year. Many investigators and authors are at work on contributions for *The NATION'S SCHOOLS*. Problems have been laid by the editors before research men and women who are well equipped to assist in their solution, and in due course the outcome of all this investigation

will be presented in a concrete, straightforward way, so that the practitioner in education may be helped thereby to make his work more intelligent and efficient. There is already in the editorial offices of the magazine much valuable material, contributed by men and women who, because of their acumen and sanity, enjoy the confidence of educational people throughout the country. This material and much more of equal value will be published in succeeding issues of the magazine.

Nature *Versus* Nurture: The Debate Continues

ALMOST the first literary event we can remember was a debate in one of the old lyceums on the question, "Is Heredity Stronger Than Environment in Determining a Person's Traits?" The debaters produced concrete facts, or at least they claimed they were facts, on both sides of the question. The auditors now applauded a speaker for heredity and then again a speaker for environment. The judges rendered a decision in this particular debate in favor of the environmentalists although the hereditarians had many vociferous adherents.

From that day to this, debate on the question has been continuous. Yet we are as far as ever we were from a decision that can be universally accepted. Argument is carried on with as much heat as it was formerly, and with but little more light. Debaters are better trained to-day than they were in lyceum and grange days. They employ statistical instead of observational methods in securing data. They make use of modern instruments of measurement, such as intelligence and achievement tests and clinical material. Despite all this, the contestants are no nearer an agreement than were the debaters who knew nothing about statistical technique and who never employed measurement of any kind in deciding whether environment were more potent than heredity in fashioning intellect, temperament and character. One can to-day find capable psychologists, statisticians and educationists ranged on the side of nature and as many of them on the side of nurture.

One of the ablest, most brilliant and most sincere of those men who are endeavoring to find out whether the route that an individual must follow after birth is so completely determined by heredity that he cannot be deflected one way or another by educational influences, is Prof. William C. Bagley. He is the outstanding exponent and defender of the view that the child is to some extent plastic and can be molded by education.

Apart from the scientific aspects of the matter, Professor Bagley's view is the one most comforting for educational people and it seems to be most fully in accord with phenomena in the classroom—and outside the classroom for that matter. If a census were taken of the 900,000 teachers in our country, it would probably be found that four-fifths of them, at least, stand with Professor Bagley. The teacher believes that he can turn his pupil into one route or another according to the influence, including various types of knowledge, that he brings to bear upon the pupil. If the teacher thought he could not improve his charges by judicious selection of materials and methods of instruction and discipline, he would become disheartened and give up his job.

Some investigators who are working in this field are producing data that seem to show that a child's traits and achievement are unaffected by environmental conditions or experience, including school instruction. No matter how skillful these persons may be in the employment of statistical technique and in the presentation of tables of correlations and curves of distribution, teachers who work with children day in and day out and who have observed the careers of those persons who have had various kinds of home, school and community training, cannot be made to believe that a child will follow a certain course in his development regardless of the kind of educational programs he may be required to follow. At the present moment evidence derived from observation and experience is all on the side of nurture as a potent factor in human development, and scientific evidence is at least as strong and conclusive on this side as it is on the side of nature as the sole determining factor in shaping the career of a human being.

Providing Luncheons for School Children

SCHOOL people and such agencies as the League of Women Voters, the Federation of Women Clubs and various service clubs are to be praised for their activities in promoting the movement to provide luncheons at cost for school children. Observation of the operation of school luncheons in every section of the country in no way produces the impression that in any place they are unnecessary or a failure.

It is not intended to say that every child in school will be benefited by school luncheons. There must be many children who are so well and so intelligently provided for at home that they cannot gain benefit from luncheons at school. But it

is certainly safe to say that seventy-five per cent of the children in the schools would be or are being benefited by such luncheons. The typical home cannot provide such a well balanced luncheon for school children as can the school. Then, for a large proportion of children, the school affords a more congenial social environment for luncheon than does the typical home, especially in these days when there is no such thing as a home circle at luncheon time.

An examination of statistics of some school lunch rooms reveals that a well balanced school luncheon can be supplied for less than can a home luncheon of the same dietetic value. For this reason, if for no other, schools are justified in providing adequately for school luncheons.

Interpreting Modern Education for the Laymen

TWENTY-five years ago scientific men sniffed at the idea of making science intelligible to the masses. A scientific man believed that he could maintain his prestige only by surrounding himself with a certain atmosphere of aloofness and mystery. He lived in an intellectual realm that was too rarified for the mob. Any scientist who would attempt to popularize knowledge in his particular field would be excommunicated from the Order of Scientists. As a matter of fact, scientists twenty-five years ago deliberately avoided any conduct that would lead their colleagues to suspect that they were seeking to present scientific knowledge in terms that could be understood by laymen.

What is happening now in respect to this matter? In their various societies, scientists are considering ways and means of popularizing scientific knowledge. *Science Service* is exceedingly busy interpreting scientific discoveries for the man on the street and the woman in the kitchen. Even the most esoteric scientists are becoming convinced that knowledge ought to be presented to the masses in such a form that it can be grasped and applied to the betterment of daily life. The day is gone forever in America when scientists will think that it is grand, noble and scholarly to make it impossible for scientific knowledge to be made intelligible to the common man.

Scientific workers in the field of education have heretofore taken the same attitude toward the interpretation of their findings for the layman that scientists in other fields have assumed. The educational scientist has developed a technical vocabulary and symbolization, both of which are

utterly unintelligible even to teachers, and they regard with disfavor any attempt to help teachers, and especially laymen, to become informed regarding their discoveries.

It was probably necessary for educational investigators to protect themselves for a time from disturbance by the nonscientific mob, so that they could elaborate a technique of research and accumulate a body of scientific knowledge without being distracted from their work by the demand for the popularization of their findings. But we have gone far enough now, so that the educational scientist need have no fear that he will be prevented from doing scientific work if he lets the layman know what secrets are being revealed by his insight and skill. People have respect now for scientific method in the investigation of educational problems so that they will not invade the scientist's laboratory and prevent him from continuing his inquiry into complicated problems affecting the nature and needs of the young.

The layman will be all the more appreciative of the scientific worker in the educational field and will be more ready to appropriate funds to carry on his research, if his findings are put before the layman in such terms and in such forms that they can be understood and their value appreciated. Unless the educational scientist will interpret scientific data for the people, the non-scientific charlatan will hold the public ear and will surreptitiously, if not openly, ridicule the scientist and prejudice the layman against him.

Workers Are Going to School

IT USED to be thought that when young people got a job they should stick to it from early morn until dewy eve, and the year 'round except for a vacation of a week or two. But a better day is dawning for the young worker. He can go to school now during the summer.

The experiment of admitting workers to college classes for a six weeks' session has been tried at the University of Wisconsin during the last four years and the results are encouraging. Thus far, mainly young women from dressmaking, clothing and other establishments have been taking advantage of the opportunities offered by the university for summer study, but during the last summer several men enrolled. Of course, special classes, adapted to their preparatory training, are organized to meet the needs of the workers. These workers appear to be well endowed mentally and are eager and earnest. They take hold of intellectual work with avidity. They may not be interested in merely theoretical or so-called cultural studies, but they enthusiastically attack

actual problems relating to industry, labor, economics and political science.

It will sound Utopian to some, but it is not inconceivable that the time may be approaching rapidly when those who work with their hands will stop for a few weeks during the year and go to college to study subjects bearing upon their relations to society and to the industry in which they are engaged. Their studies will not be confined narrowly to the specific work they are doing, but will include their social, intellectual and esthetic interests and needs. It will be better for society as well as for the individual if workers can be kept growing intellectually so that they can keep abreast of developing thought, not only in their particular fields but also in social, scientific and political fields. Theoretically, no one can become a worker now who has not completed eight years of intellectual work. Most of them probably go on for one or more years longer. They have a basis, then, that will enable them to comprehend concrete instruction relating to the adjustments they should be able to make to their physical, social and vocational environments.

The College Student at the Bar

COLLEGE presidents are hammering college students these days. Charges are made that a large proportion of college and university students ought to be cast into outer darkness because they have no real interest in college work. They go to college because they do not wish to work or because they can have a good time and gain some prestige by spending four years on a college campus. There is certainly a growing conviction that a considerable part of the college population does not know or care what college studies are all about. Theoretically, students go to college for the pursuit of knowledge, but a lot of them get winded as soon as the chase begins.

College executives are almost universally demanding that higher standards be set for admission to collegiate study. They say that young people who are not interested in serious intellectual work should be denied the privilege of enrolling in any college. But the Department of Superintendence of the National Education Association suggested in a resolution at the Boston meeting that all who wanted to go to college should be admitted and that colleges should adjust their work to the ability, interests and character of various types of students. There does not seem to be much chance of harmonizing the views and wishes of the college executives on the one side and those of the superintendents on the other.

One way out of the difficulty offers itself. If the principals of preparatory schools would refuse to recommend for admission to college those students who do not possess intellectual interests and who would loaf through the college course, it might be possible to reserve the colleges for those who earnestly wish to extend their education. Character and temperament tests can be given now in secondary schools and by means of them the high-school faculty can supplement impressions gained of students in their class work. It should be possible in this way to make an accurate estimate of a student's intellectual ability and of his inclinations, desires and dominant interests. Further, it might be practicable to dissuade those students from applying for admission to college who do not seem to realize and probably cannot acquire the notion that the purpose of going to college is to gain knowledge and discipline with a view to serving society.

Many students have no conception that they owe any obligation to any person and particularly to society that should cause them to apply themselves diligently to college work. Neither are they ambitious for self-improvement. They just want to be collegiate and to have all the fun and the distinction that accompanies college life.

Doctor of Education

THE progress that is being made in the development of what may, perhaps, be called a science of education is suggested by the fact that several universities are now conferring the degree, Doctor of Education, which is coordinate in dignity and significance with Doctor of Philosophy or Doctor of Science.

A decade ago no university faculty would have approved a doctor's degree in education; most faculties would not grant even a bachelor's degree in education. But these last ten years have been fruitful in the advancement of scientific achievement in education. The technique of educational investigation has been perfected and research has been carried forward on an enormous scale. There is now enough in the fields of administration, supervision and teaching for anyone to devote three years to the mastery of the material in order to earn a doctor's degree. Education has already reached, or is fast reaching, the place where it can stand on a par with economics, botany, literature or any other field in which students can earn a doctor's degree.

Students of a scholarly disposition who, heretofore, have wished to devote themselves either to teaching education or to research in the educational field, have been required to pursue subjects

quite unrelated to the history, psychology or methodology of education. It has been necessary for them to secure the degree of Doctor of Philosophy, which indicated that their studies had been largely general. It should not be necessary hereafter for any student of education to spend time in the pursuit of subjects in which he is not interested or which do not bear upon the problems he wants to investigate. The degree of Doctor of Education should mean and it does now mean that its possessor has completed an undergraduate course of general studies and a graduate course of three years of specific studies in the field of education. All universities adequately equipped for three years of graduate work in the educational field will doubtless soon abandon the Doctor of Philosophy degree for studies in education and will substitute therefor the degree of Doctor of Education.

Laboratory Study of Teaching

THE Central Division of the Illinois State Teachers Association has just published a little booklet containing stenographic reports of a number of elementary-school lessons. Questions asked by the teachers in these lessons, the responses of pupils and the assignments of lessons are all reproduced verbatim. Then an appraisal is made of each lesson on the basis of the stenographic report.

This is the best way to study methods of teaching—to take typical specimens, dissect them, study the relation of one part to each other part and to the whole and then evaluate the parts and the lesson as a whole. Novices cannot fail to have their eyes opened by work of this kind, and even experienced teachers may detect some of their own shortcomings and may gain suggestions from the skillful handling of difficult problems. The appraisal of a lesson is to some extent a matter of opinion, but it is a valuable experience for a teacher to look at a real lesson and estimate its value in the light of his conception of what a lesson in one or another school subject ought to be.

This type of procedure in teacher training should be more generally practiced than it appears to be. Would it not be well for every novice to analyze typical detailed lessons in each subject he is to teach, deciding whether each question asked by the teacher was a good one, whether every pupil in the class was stimulated to react effectively upon situations presented in the lesson and whether the points that were developed were brought out clearly in the conclusion and established indelibly in the pupil's mind so that he could apply them to situations in real life.

Your Every-day Problems

JOHN GUY FOWLKES, THE UNIVERSITY OF WISCONSIN, DIRECTOR

This department will be devoted to an informal discussion of problems arising in the every-day life of principals and superintendents. The following are excerpts from letters that have been received recently by the director of this department. Similar inquiries are invited, and should be addressed to Dr. John Guy Fowlkes, Department of Education, University of Wisconsin, Madison, Wisconsin.

What Do School Grades Mean?

More intelligent attention is being given to school grades than ever before in the history of public education in this country. Such questions as whether to include general conduct as a part of course grades or to give general conduct grades separately, criteria upon which credit should be given or withheld and differences in the problem of measuring pupil achievement in the elementary school as opposed to the high school, are some of the questions that are being considered carefully at the present time.

One of the major inquiries that laymen and professional educators alike are insistently raising is: What do school grades mean? This question has been presented some eight or ten times within the last few weeks. Consequently the following statement is submitted as a suggestion of possible definitions of just what school grades do mean. It is offered as indicative rather than definitive of what such a statement should be.

A or E or 90 to 100 is given to the pupil who is in regular attendance; is prompt in completing and handing in to teacher all forms of written work; does more than is required of him; brings in outside material without being asked to do so; volunteers information; shows originality in thought and procedure; systematically and thoroughly prepares his work; habitually uses good English and is ready to assume the responsibility of leadership.

B or V G or 85 to 90 is given to the pupil who is habitually present; is usually cooperative; is a contributing member of the class; sometimes does more than is expected; occasionally assumes the responsibility of leadership; at times does original work; prepares his assignments; is prompt and neat in work and almost always uses good English.

C or G or 80 to 85 is given to the pupil who

is usually present; seldom contributes anything to stimulate the work of the class; seldom raises questions of his own; takes some time to get down to work; gets the fundamentals of the subject; usually neat, not always prompt; is learning to cooperate; is improving in his English and seldom shows originality of thought.

D or P or 75 to 80 is given to the pupil who is frequently absent; rarely contributes to the work of the class; placidly accepts school or considers attendance necessary; seldom completes work expected; seldom brings in work asked for; finds difficulty in getting down to work; never shows originality of thought or method of work; uses poor English habitually and never raises questions of his own.

F or under 70 or 75 or failure is given to the pupil who will not work; does poor work because he feels he "can't"; is habitually absent; is indifferent and does work of such poor character that he would be unable to continue a similar course based on this.

A School Building Program

Several superintendents have written recently concerning a general outline for the development of a school building program. The following outline has been distributed and has proved helpful in several instances.

School Building Programming.

Needs for: rapid growth of cities; changes in requirements; in relation to city planning; increase in tax rates.

Requisites: determination of present and future needs by a study of the population; correct evaluation of existing school plant; financing the building program.

Population Studies.

Census statistics: general population based on

official federal or state census and city directories.

Population estimates: postal service; telephone companies; public service; registration lists; building permits; real estate transactions.

Analysis of population: family data; occupational data; number of foreign born; number of transients; number of commuters; study of age groups; presence of racial alignments; miscellaneous data.

Economic status of population: proportion of home owners; type of residences for tenants; selection in relation to real estate values.

School population: school census—legal census ages and compulsory school ages; enumeration technique—legal provisions, use of continuous or permanent census records and cooperation between the various branches of the public service; number of child labor permits issued annually.

Attendance data: public-school system—total enrollment, average membership, aggregate attendance and average daily attendance in the elementary schools, the junior high school and the senior high school; part-time schools; Negro schools; private schools.

Comparative data: comparisons with other cities by means of ratios—school census to total population, enrollment to school census, A. D. A. to school census, total A. D. A. to general population, elementary school A. D. A. to total A. D. A., junior high school A. D. A. to total A. D. A., and senior high school A. D. A. to total A. D. A.—length of school year, length of school day; comparison of wards.

Evaluation of Existing School Plant.

Bases used for evaluation or measurement: site—location, nature and condition and size and form; condition—number of years in use, this to include a record showing date of erection of each building including additions that have been made, degree of upkeep or maintenance and sanitation such as service systems, janitorial service and miscellaneous provisions; adequacy—number of pupils accommodated, adaptability to types of instruction offered, adaptability to type of administrative organization; accessibility—distances from homes of pupils, means of transportation and provisions for children with physical disabilities; utilization—percentage of space for construction, general purposes, administration, social activities and instruction, this to embrace general rooms and special rooms; study of the number of hours each room is used per day; graphical representation of utilization studies; relations between utilization, size and efficiency.

Use of the score card: validity and reliability;

necessity for agreement upon standards; detailed analysis of score card—one or two-room buildings, elementary-school buildings, junior and senior high-school buildings and special type buildings; advantages of the score card as a measuring device; shortcomings of score cards in use at the present time; suggested improvements in score card construction.

Planning Changes in Old Buildings.

Careful objective scoring by a committee of three.

Diagnosis of findings: points of greater deficiency; extent to which the situation may be remedied; cost of making needed changes in comparison with original cost or present value of the building and in comparison with cost of a new modern building; accessibility and adequacy of present site; sale value or usability of building for other purposes; other considerations.

Plans and specifications for remodeling.

Provisions for financing.

Planning Construction of New Buildings.

Study of needs: present and future.

Type of building contemplated with reference to administrative organization.

Selection of site.

Plans and specifications: preliminary plans; drafting and approval of final plans.

Financing the Building Program.

Administration and Management of Construction work.

Estimation of costs: overhead costs; unit costs.

Letting of contracts: advertising for bids; selection of contractors; fixing of bail.

Selection and work of supervising architect.

Work of local supervisory officers.

Final acceptance of building.

Preparing Tabular Material for the Superintendent's Report

Inquiries concerning the make-up of superintendents' reports, particularly with respect to tabular material continue to arise. Inasmuch as most of the questions are centered around the most common causes of error in educational data, it seems wise to present a sampling of the most common types of error in educational statistics. This is based upon Carter Alexander's "School Statistics and Publicity," published by Silver Burdett & Co.

Unanalyzed totals: total enrollment; percentage of children physically defective.

Comparisons employing indefinite units: enroll-

ment—differences in basis of figuring; school expenditures—total by cities compared without reference to number of children, length of term or type of training; age—differences in method of computing; teachers' salaries—salary per month disregards number of months; teaching load—number of classes taught daily disregards enrollment, number of preparations and type of work; tax rate—disregards assessment rate and tax rate for other purposes; college degrees—number of teachers with degrees disregarding character of institution granting; school achievements—quantity of work done regardless of difficulty; teachers' marks—different standards of judgment used to determine marks and scholarship honors.

Comparisons using unsound elementary treatment: percentages—incorrect statement or disregarding base especially in small groups; carelessness in securing data—unusual conditions disregarded, such as an epidemic or a new school; lack of precision in defining terms such as expenditure for repairs; omission of important factors, such as comparing the decrease in illiteracy in two communities and the intelligence of group compared.

Attempts at too great accuracy: cost figures—carrying figures further than basic data warrant; standards—conditions under which they were derived unknown; individual scores on tests used as measures of an individual's ability; medians, averages, etc.—carried out farther than data warrant.

How Statistics May Cause Errors

Neglect of technical statistics: averages instead of medians; unweighted averages; improper sampling—averaging high and low, judging by best or poorest papers or from conspicuous cases, cases not selected at random, insufficient cases; general statements regarding correlation without use of formulae; incorrect interpretation of a scale step, for example, does 6 mean 6 to 7 or $5\frac{1}{2}$ to $6\frac{1}{2}$; omitting base line in graphic comparisons; neglecting practice level attained in using data for correlation; reliability of measuring instrument undetermined—character of the distribution disregarded, correlations by class groups instead of individuals.

Mechanical errors: scoring papers; computations.

Errors of judgment and interpretation: "intelligence" quotients determined from group tests or based on performances in verbal tests only; achievement quotients of bright children considered as easy to raise as those of slow pupils; truthfulness of facts used not established.

Industrial Teachers in Great Demand in the Schools

With the advance of modern industry many new professions, trades, and occupations have come into being, demanding technical experts. The schools, in order to meet these conditions, have been forced, more and more, to provide industrial training for pupils.

One of the most important developments in industrial education, namely, the general shop, is in great need of adequately trained instructors, according to a recent survey. Teachers with initiative qualities are demanded; teachers who have had a wide range of experience in a variety of crafts, and who can apply their skill in an elementary way in the construction of projects adapted to pupils of varying abilities and interests. The normal schools and colleges have not been able to cope with this new situation in supplying good general shop teachers in sufficient numbers to meet the required need. As a result, many communities have not yet reorganized their work on a general shop basis. Experience as a skilled mechanic is a necessary qualification for a shop teacher of a vocational subject, and many of the best shop teachers are recruited directly from the trades.

It is necessary, in most instances, to make some provision for training in methods of instruction after a tradesman has entered upon employment as a teacher, because few experienced tradesmen have had courses preparatory for teaching. Moreover, improvement in instruction is a responsibility of supervision and must be assumed as a part of a continuing program for increasing the efficiency of teachers.

Athletes Have High Scholastic Standing at Rutgers

College students who participate in athletics do not suffer scholastically because of their sports, according to the results of a survey at Rutgers University. The statistics were gathered at the suggestion of the Carnegie Foundation for the Advancement of Teaching and include the college records of 256 members of the class of 1926.

Athletes received a higher average grade during the four years than nonathletes, according to the survey. It was also found that a larger percentage of athletes received degrees than nonathletes and that the intelligence rating of athletes was higher. Both groups studied had carried approximately the same number of hours of study.

How Schools Can Serve Democracy Is Theme for Convention

Paul V. McNutt, commander, American Legion, will be on the program of the fifty-ninth winter meeting of the Department of Superintendence to be held in Cleveland, February 24-28

FRANK D. BOYNTON, president, Department of Superintendence, National Education Association, has chosen as his convention thesis for the department's fifty-ninth annual meeting at Cleveland, February 24-28, "How can the public schools better serve democracy and increasingly produce a better type of citizen?" To discuss that thesis he has called upon a large group of speakers who represent the leaders of the teaching profession and of other phases of public life.

The Cleveland convention will open with vesper services at 3:15 o'clock Sunday afternoon in the music hall of the Cleveland Auditorium. The speaker will be the Rev. Joel B. Hayden, minister of Fairmont Presbyterian Church, Cleveland. The music will be presented by the Glendale Choral Club under the direction of Russell V. Morgan, director of music, Cleveland public schools, who will be in general charge of the musical programs of the convention.

Doctor Boynton has chosen to discuss the convention theme under four subtopics, each subtopic to be taken up at one of the four morning sessions, beginning Monday morning, February 25. The four subtopics are: the better financing of public education, the articulation of the units of American education, a better trained and better selected teaching staff and character education.

Cleveland Superintendent to Preside

The speakers at the Monday morning session, to be presided over by R. G. Jones, superintendent, Cleveland public schools, will be E. M. Williams, president, Cleveland board of education; President Frank D. Boynton; Joseph M. Gwinn, superintendent, San Francisco public schools, first vice-president of the department; Dr. George D. Strayer, professor of school administration, Teachers College, Columbia University, and Superintendent M. G. Clark, Sioux City, Iowa.

The Tuesday morning theme will be discussed by Superintendent Herbert S. Weet, Rochester, N. Y., chairman of the department's commission on the articulation of educational units, who will

speaking on the commission's work; Dr. John Dewey, dean, Columbia University, and Edward C. Elliott, president, Purdue University, Lafayette, Ind.

The problem of selecting and training better teachers will be discussed on Wednesday morning by Superintendent E. C. Hartwell, Buffalo, N. Y.; Superintendent Charles S. Meek, Toledo, Ohio; Dr. Julian E. Butterworth, professor of education, Cornell University, Ithaca, N. Y., and State Commissioner Frank P. Graves, Albany, N. Y.

The speakers who will consider whether the convention theme can be answered by a program of character education are Dean William F. Russell, Teachers College, Columbia University; Professor William C. Bagley, Teachers College, Co-



Frank D. Boynton, president of the Department of Superintendence, National Education Association.



R. G. Jones, superintendent of schools, Cleveland.

lumbia University, and President John J. Tigert, University of Florida.

On Thursday afternoon the convention will close with a program which President Boynton promises will serve as a fitting climax to the meeting. No session is planned for Thursday night because of the railroad schedules in Cleveland. All trains, except for Chicago, leave the city before 8:40 o'clock in the evening.

Among the principal speakers announced for Thursday afternoon is Paul V. McNutt, national commander, American Legion, and dean, Indiana University law school.

At this meeting Uel W. Lamkin, president, National Education Association, will be introduced for a brief address.

Two evening sessions have been planned. Wednesday evening has been reserved for college dinners. Monday night in the main hall of the Cleveland Auditorium a demonstration of physical education will be given by the children of the Cleveland public schools.

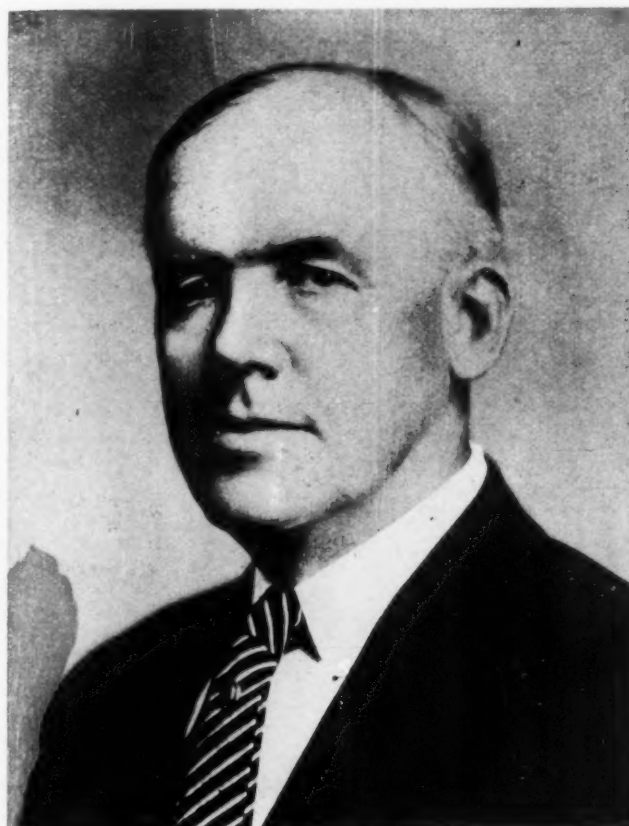
The Tuesday evening meeting will be a joint session with the American Educational Research Association at which Dr. Arthur B. Moehlman, president of the research association and professor of education, University of Michigan, will preside. The theme will be the value and importance of research as a basis for school adminis-

tration. The speakers will be M. R. Keyworth, superintendent of schools, Hamtramck, Mich.; W. W. Theisen, assistant superintendent of schools, Milwaukee, Wis.; J. Cayce Morrison, assistant commissioner for elementary education, State Department of Education, Albany, N. Y., and M. R. Trabue, professor of education, University of North Carolina.

The program as tentatively arranged is as follows:

Sunday, February 24. The ministers of Cleveland and of the nation are invited to discuss the convention thesis in their Sunday morning discourses on February 24, the opening day of the convention. A vespers service will be held at 3:15 o'clock in the afternoon in the music hall of the public auditorium. The Rev. Joel B. Hayden, pastor, Fairmont Presbyterian Church, Cleveland, will speak and music will be furnished by the Glendale Choral Club under the direction of Russell V. Morgan, director of music, Cleveland public schools.

Monday, February 25, 9 a.m. The discussion topic for the Monday morning program will be: How can the convention thesis be answered through a better financing of public education? Robinson G. Jones, superintendent of schools, Cleveland, will preside. The program will in-



Uel W. Lamkin, president of the National Education Association.

clude many interesting features and is as follows:

Singing, led by Albert Edmund Brown, dean, Ithaca Institution of Public-School Music, Ithaca, N. Y.

Responsive prayer, led by the president of the department.

Address of welcome, E. M. Williams, president, board of education, Cleveland, and president, Sherwin-Williams Paint Company.

President's address, Frank D. Boynton, superintendent of schools, Ithaca, N. Y., and president, Department of Superintendence.

Our chief concern with the future school building program, Joseph M. Gwinn, superintendent of schools, San Francisco, Calif.

How is education to be financed in view of the increasing cost? George D. Strayer, professor of school administration, Teachers College, Columbia University, New York City.

Report of the committee on lay relations, M. G. Clark, superintendent of schools, Sioux City, Iowa.

Monday, February 25, 2:15 p.m. Discussion groups will use the same theme as that discussed during the morning. It will be divided between the speakers named and discussion will be made from the floor. This plan will be followed each afternoon.

The following discussion groups will meet:



Dr. J. H. Newlon, director, Lincoln School, Columbia University.



Sherwood D. Shankland, executive secretary of the Department of Superintendence.

Group 1, county superintendents, J. W. Sweeney, superintendent, Elk County schools, St. Mary's, Pa., chairman.

Group 2, cities of less than 10,000 population, L. H. Hugbee, superintendent of schools, West Hartford, Conn., chairman. Other speakers include: J. C. West, Bemidji, Minn.; H. H. Davis, Columbus, Ohio; Arthur Deamer, Cedar Rapids, Iowa; H. M. Roland, Washington, N. C.; C. F. Hedges, Neenah, Wis.

Group 3, cities over 10,000 and less than 50,000 population, Wilbur H. Lynch, superintendent of schools, Amsterdam, N. Y. Other speakers include: M. G. Neale, Columbia, Mo.; Louis P. Benezet, Manchester, N. H.; Ray R. Roundebush, Indianapolis, Ind.; W. W. Fairchild, Rutland, Vt.

Group 4, cities of 50,000 to 100,000 population, L. W. Mayberry, superintendent of schools, Wichita, Kan., chairman. What education should be publicly financed? Frank Pickell, Montclair, N. J.; how a city of 100,000 people profits from an adequate statewide financing system, Paul R. Mort, New York City; economies effected through efficient business management, Homer Shepherd, Knoxville, Tenn.; practical economies which are put into effect in cities of 100,000 people, M. C. Lefler, Lincoln, Nebr.

Group 5, cities larger than 100,000 and less than 200,000 population, George N. Child, super-



George D. Strayer, professor of educational administration, Teachers College, Columbia University.

intendent of schools, Salt Lake City, Utah, chairman. The attitude of the public mind toward taxation, A. L. Threlkeld, Denver, Colo.; the relationship between financial support of education and results, C. B. Glenn, Birmingham, Ala.; why school costs have increased in recent years, R. L. Jones, Memphis, Tenn.; financial economies in school administration, P. C. Packer, Iowa City, Iowa.

Group 6, cities of over 200,000 population, Frank Cody, superintendent of schools, Detroit, Mich., chairman. National aid for education, Frank W. Ballou, Washington, D. C.; state aid for education, J. A. H. Keith, Harrisburg, Pa.; the pay-as-you-go plan for capital costs, H. C. Morrison, Chicago; a continuous publicity program, R. G. Jones, Cleveland.

Group 7, vocal and instrumental music will be discussed by Will Earhart, director of music, Pittsburgh Public Schools, Pittsburgh. Music in the individual and the individual in music, Walter Van Dyke Bingham, New York City; the place of music in the high-school curriculum, John T. Bogan, Chicago; what company should music keep?—an inquiry as to the appropriateness of music in college and college preparatory courses, Will Grant Chambers, State College, Pa.; the answer given by high schools and colleges, a report of present practice as disclosed by a recent

survey which has been made by Peter W. Dykema, New York City.

Group 8, assistant and district superintendents of schools, Frank M. Underwood, assistant superintendent of schools, St. Louis, Mo., chairman. Other speakers include: W. H. Martin, Kansas City, Mo.; E. B. Cawthorne, Dallas, Tex.; Mary A. S. Mugan, Fall River, Mass.; Edwin L. Miller, Detroit, Mich.; H. M. Buckley, Cleveland.

Monday, February 25, 7:35 p.m. This program will be a demonstration of physical and health education by Cleveland children with a half-hour music program presented by the Cleveland public schools. The program will be arranged by the staff of physical and health education workers in the Cleveland public schools.

Tuesday, February 26, 9:15 a.m. The theme of this program is the articulation of the units of American education. Following is the program:

Singing, led by Russell V. Morgan, director of music, Cleveland public schools.

The work of the commission on articulation of educational units, Herbert S. Weet, superintendent of schools, Rochester, N. Y., chairman.

Waste in American education through lack of coordination of the units of American education, John Dewey, professor of philosophy and dean of Columbia University.

The problem of articulation as seen by the college and professional schools, Edward C. Elliott, president, Purdue University, Lafayette, Ind.

The necessity of coordinating educational activities with public affairs, Leonard P. Ayres, Cleveland Trust Company.

Business meeting, reports of committees and nomination of officers.

Joint Meeting Is Planned

Tuesday, February 26, 2:15 p.m. Discussion groups will further amplify the theme of the morning program.

Group 1, joint meeting with the National Council of Kindergarten Supervisors and National Council of Primary Education. The topic will be problems and progress in the articulation of the kindergarten and the primary grades. Julia Letheld Hahn, director of kindergarten and primary grades, San Francisco, Calif., will preside.

Group 2, the new types of organization of school units, George Melcher, superintendent of schools, Kansas City, Mo., chairman. Other speakers include: William John Cooper, Sacramento, Calif.; John Sexson, Pasadena, Calif.; Samuel J. Slawson, Johnston, Pa.; James M. Wood, Columbia, Mo.; M. H. Moore, Fort Worth, Tex.

Group 3, where can it best be economized in reorganization of educational units? Charles H.

Judd, professor of education, University of Chicago, chairman. Other speakers include: Fred J. Kelly, Moscow, Idaho; Samuel C. Capen, Buffalo, N. Y.; C. R. Mann, Washington, D. C.; David Allen Robertson, Washington, D. C.

Group 4, accrediting agencies and college entrance requirements, J. B. Edmonson, professor of education, University of Michigan, Ann Arbor, Mich., chairman. Other speakers include: Jesse Newlon, New York City; Lewis Wilbur Smith, Berkeley, Calif.; Jesse B. Davis, Boston, Mass.; George M. Wiley, Albany, N. Y.

Articulation Problems Will Be Discussed

Group 5, advantages and disadvantages of the six-year high school for the larger city and smaller community, R. E. Tidwell, state superintendent of public instruction, Montgomery, Ala., chairman. The six-year high school in the American public-school system, C. O. Davis, Ann Arbor, Mich.; the six-year high school in the larger urban community, C. R. Foster, Indiana, Pa.; the six-year high school in the rural community A. W. Yawberg, Cleveland.

Group 6, articulating school with life, Paul C. Stetson, superintendent of schools, Dayton, Ohio, chairman. Other speakers include: Mrs. S. M. N. Marrs, Austin, Tex.; Robert L. Cooley, Milwaukee, Wis.; Howell Cheney.

Group 7, articulation problems in the field of adult education, Carroll R. Reed, superintendent of schools, Bridgeport, Conn., chairman. Administration and organization in smaller communities, W. C. Smith, Albany, N. Y.; administration and organization in larger communities, William J. Bogan, Chicago; curriculum and method in larger cities, Alonzo G. Grace, Cleveland; curriculum and method in smaller communities, Paul J. Kruse, Ithaca, N. Y., and Randall J. Condon, Cincinnati, Ohio.

Group 8, the guidance program as a means to articulation of the units of American education, John H. Bosshart, superintendent of schools, South Orange, N. J., chairman. Other speakers include: Richard D. Allen, Providence, R. I.; Willard E. Givens, Oakland, Calif.; Charles D. Cooper, Brockport, N. Y.; E. N. Ferris, Ithaca, N. Y.; F. E. Clerk, Winnetka, Ill.

Group 9, articulation of teacher training agencies with the other units of American education, John W. Withers, dean of the School of Education, New York University, New York City, chairman. Other speakers include: Arvie Eldred, Troy, N. Y.; R. H. Jordan, Ithaca, N. Y.; Francis G. Blair, Springfield, Ill.; C. A. Phillips, Columbia, Mo.

Tuesday, February 26, 7:35 p.m. This will be

a joint meeting with the American Educational Research Association. The importance of research as a basis for public-school administration will be discussed. Program topics are:

Functional administration and research, M. R. Keyworth, superintendent of schools, Hamtramck, Mich.

Function and value of public-school research departments, W. W. Theisen, assistant superintendent of schools, Milwaukee, Wis.

The research function of state departments, J. Cayce Morrison, assistant commissioner for elementary education, State Education Department, Albany, N. Y.

University research and its value to public-school administration, M. R. Trabue, professor of education, University of North Carolina, Chapel Hill, N. C.

Wednesday, February 27, 9:15 a.m. The theme of this session will be: How can the public schools better serve democracy by a better trained and a better selected teaching staff? Program topics are:

What a superintendent has a right to expect of an institution training teachers for the elementary schools, E. C. Hartwell, superintendent of schools, Buffalo, N. Y.

What a superintendent has a right to expect of



Joseph M. Gwinn, superintendent of schools, San Francisco, first vice-president of the Department of Superintendence.

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Charles H. Judd, School of Education, University of Chicago.

an institution training teachers for the secondary schools, Charles S. Meek, superintendent of schools, Toledo, Ohio.

What a rural school has a right to expect of an institution training teachers for the rural schools, Julian E. Butterworth, professor of education, Cornell University, Ithaca, N. Y.

What a teacher has a right to expect in help, guidance and professional stimulus from the school engaging her services, Frank Pierrepont Graves, state commissioner of education, Albany, N. Y.

Wednesday, February 27, 2:15 p.m. Discussion groups will take for their topic for the Wednesday afternoon session: How can the public schools better serve democracy by a more careful selection of candidates for teacher training institutions, better basal training, better conditions for improvement in service and correspondingly better compensation?

Group 1, county superintendents, J. W. Sweeney, presiding.

Group 2, cities of less than 10,000 population, L. H. Bugbee, presiding. Other speakers include: E. W. Ireland, Stamford, Conn.; L. P. Hollis, Greenville, S. C.; J. P. Vaughan, Chisholm, Minn.; C. R. Coblenz, Eaton, Ohio; R. C. MacInnis, Jefferson, Wis.; I. H. Hart, Cedar Rapids, Iowa.

Group 3, cities of over 10,000 and less than 50,000 population, Wilbur H. Lynch, Amsterdam, N. Y., presiding. Other speakers: J. O. Creager, dean, College of Education, Fayetteville, Ark.; John B. Heffelfinger, Newton, Kan.; Roy P. Wishart, Indianapolis, Ind.; S. H. Davis, Dillon, Mont.

Group 4, cities of over 50,000 and less than 100,000 population, L. W. Mayberry, Wichita, Kan., presiding. Better training for entrance, David E. Weglein, Baltimore, Md.; training after entrance, A. H. Hughey, El Paso, Tex.; rewards for training, Clyde B. Moore, Cornell University; will training and rewards develop a profession? Harry DeW. DeGroat, Cortland, N. Y.

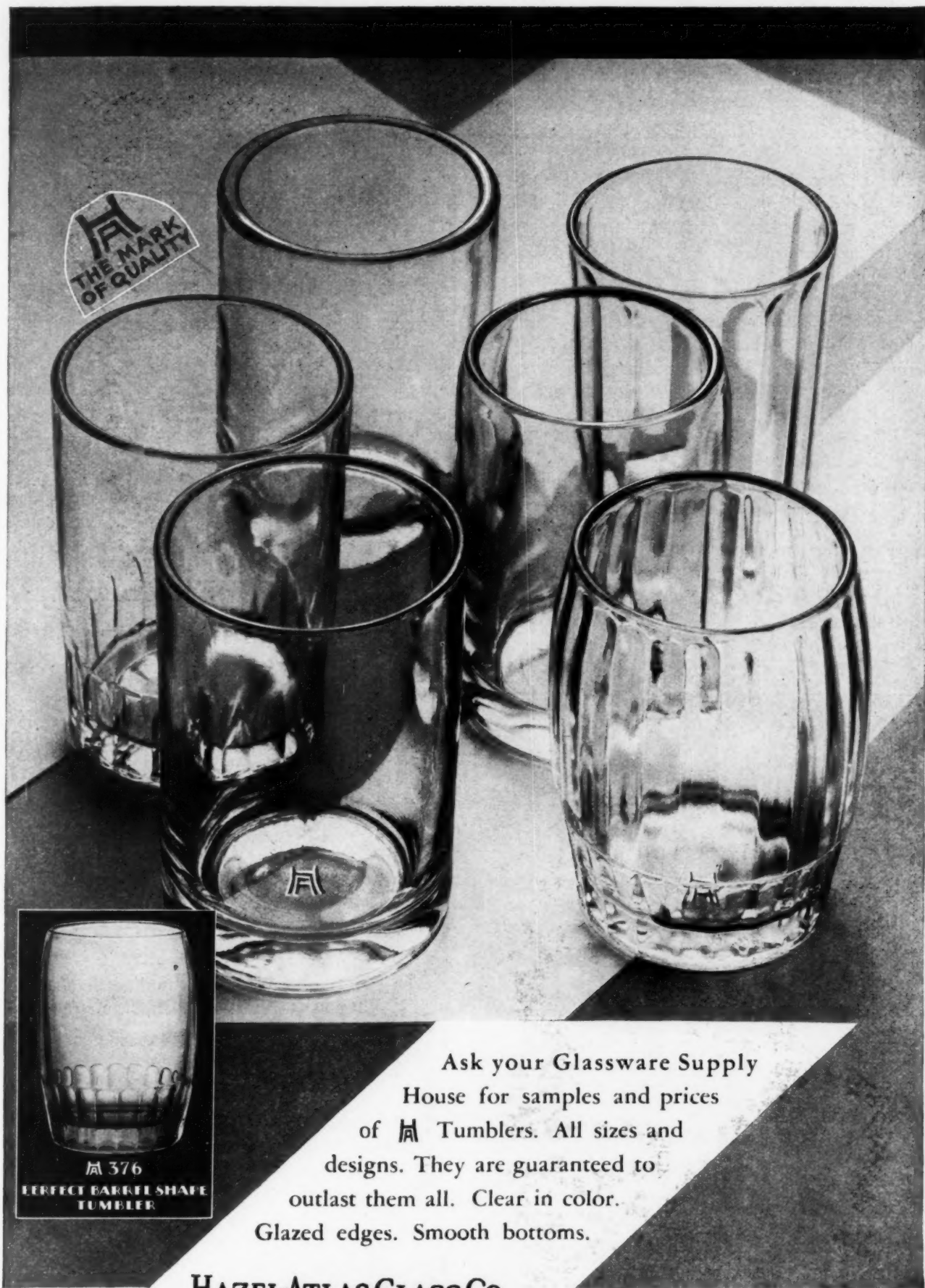
Large City Systems to Be Discussed

Group 5, cities over 100,000 and less than 200,000 population, George N. Child, Salt Lake City, Utah, presiding. Requisite qualifications of the beginning teacher and how to secure them, G. W. Frasier, Greeley, Colo.; the active teacher a constant student—why, what, when, where? P. P. Claxton, Tulsa, Okla.; the place, kind and amount of supervision requisite for improved teaching service, E. W. Butterfield, Concord, N. H.; the relationship between salary schedules and teacher service, E. S. Evenden, New York City.

Group 6, cities of over 200,000 population, Frank Cody, Detroit, Mich., presiding. What



Frank G. Pickell, superintendent of schools, Montclair, N. J.



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counts in the selection of teachers? R. L. Jones, Memphis, Tenn.; how long should be the basal training for a teacher? M. C. Potter, Milwaukee, Wis.; what training should be given while in service? C. W. Washburne, Winnetka, Ill.; how stimulate continuation of training while in service? Fred M. Hunter, Denver, Colo.

Group 7, physical and health education, Frederick Rand Rogers, Albany, N. Y., presiding. Health examinations and follow-up phases of school health work, Frederick W. Maroney, Atlantic City, N. J.; physical education, Jesse Feiring Williams, Columbia University; discussion, A. J. Stoddard, Schenectady, N. Y.

Group 8, training for administration, Zenos E. Scott, Springfield, Mass., presiding. Other speakers include: Fred Engelhardt, Minneapolis, Minn.; Augustus O. Thomas, Augusta, Me.; Thomas W. Gosling, Akron, Ohio; E. E. Lewis, Columbus, Ohio.

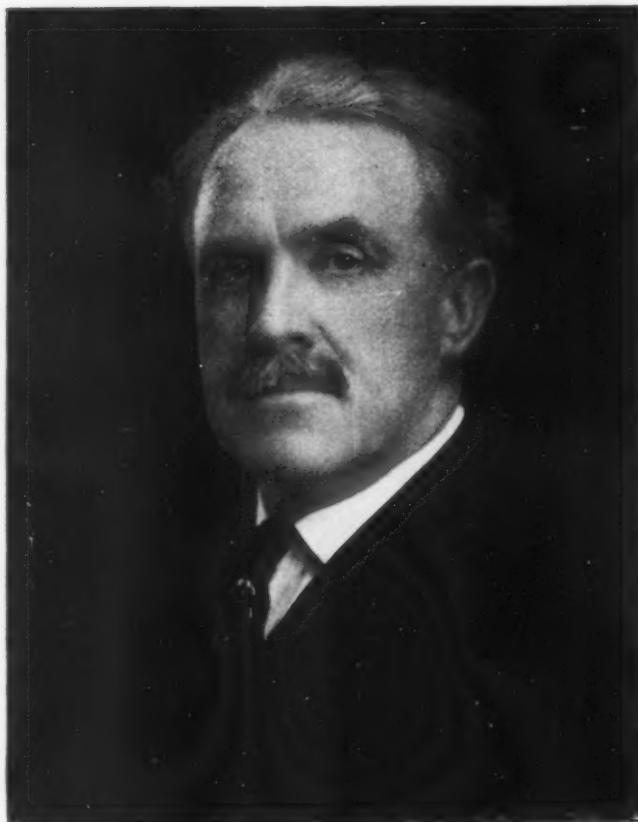
Wednesday, February 27, 7:30 p.m. This evening is reserved for college dinners.

Eminent Speakers on Thursday's Program

Thursday, February 28, 9:15 a.m. The theme for Thursday's program is: How can the convention thesis be answered through character education? The following program will be given:



E. E. Lewis, school of education, Ohio State University, Columbus, Ohio.



William J. Bogan, superintendent of schools, Chicago.

The scientific investigation of problems of character education, William F. Russell, dean of Teachers College, Columbia University, New York City.

Handicaps of character education in the United States, William P. Bagley, professor of education, Teachers College, Columbia University, New York City.

Character education from the point of view of the philosophy of education, John J. Tigert, president, University of Florida, Gainesville, Fla.

Reports of committees.

Thursday, February 28, 2:15 p.m.

Music program, Cleveland public schools.

Introduction of Uel W. Lamkin, president, National Education Association and president, Northwest Missouri State Teachers College, Maryville, Mo.

Introduction of the new U. S. Commissioner of Education.

Introduction of the newly elected president of the Department of Superintendence.

Address, Hon. Daniel A. Reed, congressman from the forty-third district, New York State, and chairman of the Committee on Education in the House of Representatives.

Address, Paul V. McNutt, national commander, American Legion, and dean of the law school, Indiana University.

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News of the Month

Cooperation of Schools and Industry Is Keynote of Vocation Meeting

FROM a membership of 1,225 three years ago to a membership of 7,000 to-day is the record of the American Vocational Association which met in annual convention at the Benjamin Franklin Hotel, Philadelphia, December 13, 14 and 15. The keynote of the convention was cooperation between schools and industry, a subject of much interest to the delegates as was shown by the capacity attendance at the general meetings, the conferences and round table discussions.

The association passed a resolution to the effect that it would actively engage in furthering the passing of the Curtis-Reed bill. It also pledged itself to study intensively the necessity for investigations relative to educational problems concerning pupils of secondary-school age, and in the field of adult education. The next meeting of the association will be held in New Orleans. R. L. Cooley was reelected president and C. W. Sylvester, Baltimore, was elected secretary of the association.

Subjects discussed at the convention included printing education, painting and decoration, plumbing, teacher training, retail selling, part-time education, industrial education and vocational guidance.

Eminent Educators on Program

The printing conference was opened under the chairmanship of Allen Robinson, principal, Ottman Mergenthaler School of Printing, Baltimore. The speakers at this conference were William J. Bogan, superintendent, Chicago schools; R. Elmer Throssell, teacher of printing, Newark, N. J., Margaret T. McGuire, principal, McCall Public School, Philadelphia, Merritt W. Haynes, American Type Founders Association, E. E. Vosburg, director, printing department, McCall Public School, Ralph B. Gallagher, supervisor of printing, New Jersey, Fred J. Hartman, director, department of education, United Typothetæ of America, and J. L. Frazier, Edmund G. Gress, and Charles McIntyre, editors of trade journals in the printing field.

The painting and decorating meeting was opened by a discussion by A. F. Erwin, decorating instructor, McCall Public School. Mr. Erwin, a seventy-seven year old veteran of the teaching profession, told of the possibilities of discipline through the student's confidence in the teacher. Others who had part in this program were: H. L. Freeland, state supervisor of trades and industries, Lincoln, Neb.; Mr. Frank of the Federal Board for Vocational Education, Charles T. McKee, Pittsburgh decorator, E. C. Doty, painting and decorating instructor, Cleveland Trade School and A. L. Clark, coordinator of apprentice training, Chicago.

A similar program was held on plumbing education. John A. Quinn, vice-president, National Association of

Master Plumbers, Philadelphia, was chairman of the program.

The banquet meeting on Friday evening filled the large ballroom to capacity. R. L. Cooley, president, American Vocational Association, presided.

Several teacher training meetings were held. The Michigan, New York, Colorado and California plans of certification were discussed. Frank Cushman, Federal Board for Vocational Education, displayed a chart showing the government's methods of evaluating individuals and training methods.

At the general meeting on Thursday, A. C. Kuehnle, member, industrial relations committee, Philadelphia Chamber of Commerce, discussed the part-time school. He spoke of the unusual opportunity that the part-time school gives to pupils in making it possible for them to study and to make money at the same time. He cautioned, however, against the danger of pupils' enrolling in continuation classes to avoid work. He pointed out that character must be built in the school and classroom, and that industry should give every aid to industrial training. E. C. Broome, superintendent, Philadelphia schools, welcomed the visitors and described the organization of the Philadelphia schools for vocational work.

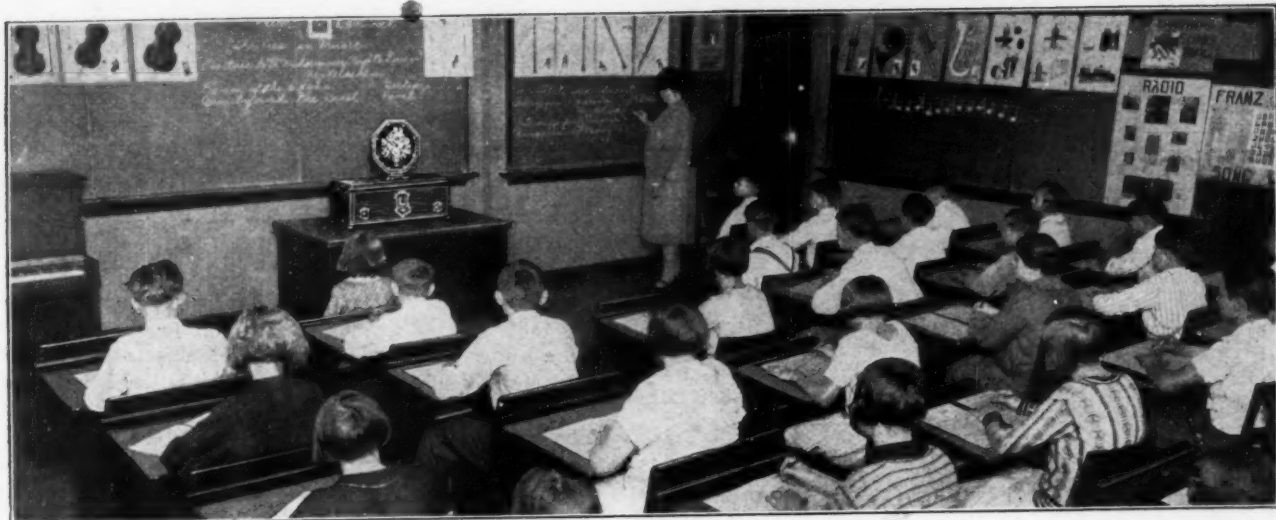
A number of Philadelphia store educational directors took part in the program of the retail selling section. A plan for the training of retail meat dealers has been developed recently in Philadelphia.

Howell Cheney, well known manufacturer, and R. L. Cooley spoke at the meeting of the part-time education section. Those who had part in the program of the industrial education section included M. K. Kane, plant training engineer, American Telephone and Telegraph Company, New York City, and Eleanor Little, production engineer, United States Rubber Company, New Haven, Conn.

Speakers at the meeting of the vocational guidance section were Frank M. Leavitt, associate superintendent, Pittsburgh schools, Margaret M. Altucker, assistant director, research division, National Education Association, R. H. Rodgers, chief, division of teacher training and research, Milwaukee Vocational School, J. V. Hanna, department of psychology, New York University and Harry Kitson, professor of education, Teachers College, Columbia University.

Sections in rehabilitation, home economics and agriculture were well attended. Trade-school principals held a special meeting.

The house of delegates met Friday afternoon. The committee on adult education made a report through Dr. C. A. Prosser, Dunwoodie Institute, which covered many interesting points.



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WHAM Rochester	WFAA Dallas
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News of the Month



Statue of Horace Mann in the headquarters building of the National Education Association, Washington.

Statue of Horace Mann Is Placed in N.E.A. Headquarters Building

The memory of Horace Mann, pioneer advocate of free public schools, was given new recognition on December 3 when a bronze statue of the immortal educator was placed in the headquarters building of the National Education Association in Washington.

The statue is a replica of one by Emma Stebbins, the original of which stands on the state house grounds in Boston. The statue, which is the exact size of the original, was given to the association by P. P. Caproni and Brothers, Incorporated, Boston, through Walter R. Siders, chairman, board of trustees, National Education Association, and field representative, World Federation of Education Associations. Secretaries of the state education associations who were meeting in Washington at that time, in addition to 120 members of the association's staff, were present at the dedicatory exercises.

The presentation address was made by Doctor Siders and the gift was accepted for the association by Uel W. Lamkin, president. A brief tribute to the part played by Horace Mann in the pioneer days of teacher organization in America was given by Joy Elmer Morgan.

Horace Mann, as a legislator, sponsored the creation of a state board of education in Massachusetts. He became the board's first secretary and undertook the task of reorganizing the school system of the state. He gave attention also to the examination of teachers and their instruction, to the improvement of school buildings and to the raising of school funds by taxation. He encouraged school libraries and discarded the slavish textbook method of teaching. His influence aided in establishing the first normal school in Lexington in 1839, which was later moved to Farmingham.

Horace Mann's contribution to American education corresponds to the contribution of Washington and Lincoln in the field of statecraft.

Many Improvements Planned for West Point

Proposed improvements at West Point, the United States Military Academy, call for expenditures of more than \$4,000,000, according to an article in *School and Society*.

Work will soon be started on the new cadet barracks which will cost about \$1,000,000. Officers' and enlisted men's quarters will cost over \$1,100,000. The gymnasium is to be enlarged to almost twice its size at a cost of about \$500,000, and the proposed World War Memorial Building will cost about \$2,000,000. The building program will cover a period of twelve years of constant construction, and preparations are being made to start immediately by razing the old cadet mess hall which is on the site chosen for the new cadet barracks.

The action is the result of an inspection by the board of visitors appointed by Congress, which made the inspection with the idea of determining what improvements were necessary.

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News of the Month

High-School Musicians Postpone Trip to Europe

The proposed trip of the National High-School Orchestra to Europe next summer to play before the Anglo-American Music Conference and the World Conference on Education has, for financial reasons, definitely been postponed until, possibly, 1931. There was a feeling, too, that it would be better for such a trip to wait until the National High-School Orchestra and Band Camp had become more thoroughly established and dates arranged to permit a four weeks' period of preparation at the camp before sailing, as this would enable the orchestra to give much better performances than would be possible otherwise.

New Association Will Promote Mouth Health in Schools

The health of the young, and the old too for that matter, depends so much upon conditions in the mouth that a nationwide effort is being made to educate teachers, parents and all who are responsible for the care and training of the young, in respect to ways and means of preserving and promoting mouth hygiene.

The American Mouth Health Association has been established for the purpose of disseminating information regarding mouth health through every available channel. An elaborate organization is projected with a view to interesting and utilizing women's organizations, educational groups, fraternal and civic organizations, health organizations, industrial groups and religious bodies. The association will cooperate with schools and colleges and also with all health agencies. The American Mouth Health Association is a philanthropic institution devoted to public service without gain. It is under the direction of a board of trustees of which Thomas B. Hartzell is president, Jacob G. Cohen, secretary and Henry P. Boos, treasurer.

An advisory board is composed of the following members: Dr. Hugh S. Cumming, surgeon general, U. S. Public Health Service; Dr. Charles H. Mayo, Mayo Clinic, Rochester, Minn., and past president, American Medical Association; Dr. Harvey W. Wiley, director, Foods, Sanitation and Health, *Good Housekeeping Magazine*; Dr. Milton J. Rosenau, director, School of Public Health, Harvard University; Dr. William H. Howell, director, School of Hygiene and Public Health, Johns Hopkins University; Dr. Irving Fisher, professor and dean, Department of Political Economy, Yale University, and chairman, hygiene reference board, Life Extension Institute; Dr. Lewellys F. Barker, emeritus professor of medicine, Johns Hopkins University, and past president, National Committee of Mental Hygiene; Dr. Harvey J. Burkhardt, director, Rochester Dental Dispensary and past president, American Dental Association.

Dr. Mazyck P. Ravenel, professor, preventive medicine, University of Missouri, and past president, American Public Health Association; Dr. William A. Evans, health editor, *Chicago Tribune* syndicate, and professor of sani-

tary science, Northwestern University Medical School; Dr. Thaddeus P. Hyatt, director, dental division, Metropolitan Life Insurance Co.; Dr. H. C. Sherman, professor, food chemistry, Columbia University; Dr. George J. Fisher, deputy chief scout executive, Boy Scouts of America; Dr. Thomas P. Hinman, past president, American Dental Association; Dr. M. V. O'Shea, professor of education, University of Wisconsin, editor, *Junior Home Magazine*, and editor, *The NATION'S SCHOOLS*; Dr. Willis A. Sutton, superintendent of education, Atlanta, Ga.; Dr. Haven Emerson, professor, public health administration, Columbia University, and associate editor, the *Survey*; Dr. F. Blaine Rhobotham, president, American Society for Promotion of Children's Dentistry; Dr. John P. Buckley, past president, American Dental Association.

Dr. Henry L. K. Shaw, professor, diseases of children, Albany Medical College, and past president, American Child Hygiene Association; Frank J. Bruno, director, department of social work, Washington University; Dr. T. Stuart Hart, chairman, executive committee, American Heart Association; Dr. Frederick A. Bricker, periodontist, Hollywood, Calif.; Dr. William H. Peters, health commissioner, Cincinnati; Dr. J. A. Blue, exodontist, radiodontist, Birmingham, Ala.; Dr. Matthias Nicoll, Jr., commissioner of health, New York State; Grace Abbott, chief, Children's Bureau, United States Department of Labor; Dr. William R. Davis, director, bureau of mouth hygiene, Michigan Department of Health; Dr. Alfred C. Fones, Bridgeport, Conn.; Dr. R. S. Towne, former chairman, mouth hygiene and preventive dentistry section, American Dental Association; Mrs. Walter McNab Miller, associate director, American Child Health Association.

Pennsylvania Educator Is Named on State Council

Dr. LeRoy A. King, professor of educational administration, University of Pennsylvania, has been appointed a member of the state council of education by the governor of Pennsylvania, John S. Fisher. Professor King, as a member of the faculty of the school of education, University of Pennsylvania, has had wide experience in educational administration. He should be a valuable member of the council because of his special research into the problems of educational finance in the state.

Gift From Rockefeller Replaces Old Tokyo Library

The new Imperial University Library, Tokyo, Japan, which replaces the one destroyed in 1923 by the earthquake, was recently dedicated. A gift of 4,000,000 yen from John D. Rockefeller, Jr., provided funds for the building. According to an announcement in *School and Society*, the new library contains 600,000 volumes, which are mostly gifts from America and Great Britain. The dedication ceremonies were attended by the American and British ambassadors and the minister of education.



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News of the Month

Coolidge Endowment Fund for Deaf School Sought

A strenuous campaign has been started to raise a \$2,000,000 Coolidge endowment fund to be used in modernizing the buildings and equipment of the Clark School for the Deaf, Northampton, Mass., according to an announcement in the *Journal of Education*. Earl P. Charlton, Fall River, Mass., is chairman of the drive, and he explains that the object is to present the check to Mrs. Calvin Coolidge, who was formerly a teacher at the Clark School, while she is still the first lady of the land. Among the plans for improvement of the school is the establishment of a department for the thorough investigation of problems relating to the deaf.

Reading Course for Parents Is Published

Various aspects of child development are presented to parents in a reading course published by the U. S. Bureau of Education. The course has been prepared in response to a demand of leaders of parent groups.

"The importance of education in the home can be realized when one considers that parents have actual or nominal supervision of children, between birth and eighteen years of age, 151,380 hours, while teachers have them during the same period only 6,300 hours," a statement by the bureau says.

In the selection of books, the bureau had the advice of experts in the field of child psychology and parent education. A series of questions is given with each title by which the parent or group following the course may test his understanding of what he has read.

Death Takes B. K. Hollister

B. K. Hollister, secretary of The NATION'S SCHOOLS Publishing Co., died suddenly, January 3, at his residence in Chicago. His death was caused by heart disease. Mr. Hollister had been connected with the publishing business for many years and to him goes the credit for conceiving the idea of publishing The NATION'S SCHOOLS as a magazine of research into educational administration. Mr. Hollister was well known to many of those serving the school field, and up to the day of his death had been active in the management of the affairs of the company.

Radio Ruling Deprives Iowa Pupils of Damrosch Program

After having made arrangements to hear the concerts that are broadcast every Friday morning by Walter Damrosch, conductor, New York Symphony Orchestra, few Iowa schools have been able to hear the music due to a ruling of the Federal Radio Commission for Iowa.

An item in *Midland Schools* urges the 26,000 teachers and the 713,000 school children of the state to use their influence to have the commission give WHO, a centrally located station, full-time broadcasting rights so that the schools may receive the programs. Numerous schools in the state had already made definite arrangements to take advantage of this unusual chance to give their pupils a first-hand cultural education.

Woman Educator Is Awarded \$5,000 Pictorial Review Prize

The fifth American woman to receive the *Pictorial Review* award of \$5,000, presented each year to a woman who has made a distinctive contribution to the world of letters, arts, science or social science, is Martha Berry, creator of the Berry Schools, Rome, Ga. Miss Berry, through her schools, has achieved a remarkable success in raising the standards of education not only in the mountains of North Georgia but throughout the entire South.

Others to receive the award were Mrs. Edward MacDowell, for her colony at Peterboro, N. H.; Mrs. Cora Wilson Stewart, for her Moonlight Schools in the Southern mountains; Sara Graham-Mulhall, for her fight against the drug traffic and Eva Le Gallienne, for her work in the Civic Repertory Theater.

Many New Buildings Opened in Ohio

Everything possible is being done to meet the educational needs throughout the state of Ohio, as is indicated by figures published in a late issue of the *Ohio Teacher*. Sixteen schools that are valued at well over \$2,000,000 have recently been dedicated. Work has been started on two new buildings that will call for expenditures amounting to around \$800,000. In Trumbull County, Wood County, Lebanon, Springfield, East Cleveland and Cleveland the proposed expenditures for the immediate future amount to more than \$4,500,000. Besides these, there are many other buildings under construction.

10,000 Danish Pupils Take Part in Jubilee Meeting

A centenary celebration of the introduction of gymnastics into the common schools of Denmark was celebrated by a jubilee "Sport Meet" participated in by boys and girls of all the common schools of Denmark and by children from Oslo, Gothenburg and Malmo, according to a translation of a report of the meet from the Stockholm journal, "Svensk Lararetidning."

The jubilee was attended by more than 10,000 persons. Besides the celebration of the centenary of gymnastics in Denmark, the meet marked the united feeling of the various Scandinavian countries which participated.

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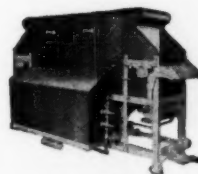
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News of the Month

California Superintendent Is New Education Commissioner

The new commissioner of education for the United States is William John Cooper, state superintendent of public instruction for California. He has been appointed to that post by President Coolidge to fill the vacancy caused by the resignation of Dr. J. J. Tigert when he left to become president of the University of Florida.

New High-School Building for Asheville, N. C.

The new high-school building at Asheville, N. C., now ready for occupancy, is one of the most attractive school plants in the Southern states and has accommodations for every phase of work that is carried on in a modern high school.

Built of gray granite blocks, it stands on the top of a hill near the eastern section of the city where it creates an imposing picture. In addition to housing the high-school department of the system, the new building also provides rooms for the new junior college recently established as part of the public-school system of Asheville. W. L. Brooker is the superintendent and Lee H. Edwards, the principal.

Veteran New York Educator Dies

Erwin Baker Whitney, superintendent of schools, fourth supervisory district of Broome County, N. Y., died suddenly at his home in Whitney Point, N. Y., on the evening of December 8. The cause of his death was given as angina pectoris. Mr. Whitney was sixty-two years old.

Mr. Whitney was graduated from the Cortland Normal School in 1889 and was for four years principal of the Chenango Forks High School, Chenango Forks, N. Y. In 1893 he was elected school commissioner of the second or western district of Broome County and held that post until the creation of the present four rural school districts, when he was elected superintendent of the northern or fourth supervisory district in which office he continued until his death.

National High-School Orchestra Camp to Open June 23

The 1929 National High-School Orchestra and Band Camp at Interlochen, Mich., will open June 23 and close August 18, thus giving 300 high-school boy and girl musicians eight full weeks of study and recreation amidst the tall pines of the northern country. The major activities will be an orchestra of 150 players, a band of ninety players, and a chorus of sixty singers.

By "doubling," the orchestra will number 220, the band 150, and the chorus 100. Each section of the orchestra and band will be in charge of an artist-performer who

will sit with his section at all rehearsals, drill his section at sectional rehearsals and give private lessons to those needing or desiring these.

The concert schedule will include regular Sunday afternoon and evening concerts, with special features for each concert. Guest conductors will probably include Walter Damrosch, conductor, New York Symphony Orchestra; Frederick Stock, conductor, Chicago Symphony Orchestra; Edgar Stillman-Kelley, whose compositions are known the world over, and Albert Stoessel, associate conductor, New York Symphony Orchestra. Dr. Howard Hanson, director, Eastman School of Music and one of the outstanding young composers of America, and Leo Sowerby, Chicago's celebrated composer and conductor, are writing symphonic works that will be given their first performance at Interlochen Bowl under their personal direction.

Oldest Women's College Loses Its Identity in Merger

The oldest women's college in this country is no more. Oxford College for Women, Oxford, Ohio, has ended a history of ninety-eight years by merging with Western College for Women at Oxford.

Oxford College originated as a sister school to Miami University that the daughters of Miami faculty members might have educational advantages. Professors of Miami University, which was at the time only twelve years old, gave their services to the college for women.

Western College for Women was founded in 1853 and has gradually increased its endowments until it has assets of nearly two million dollars.

Many Attend Meeting of State Superintendents

A meeting of the National Council of State Superintendents and the Acting Commission of Education, Department of the Interior, was held at Washington, December 11 and 12 and was attended by approximately sixty state superintendents and their assistants. Many interesting subjects were discussed on both days with a particularly interesting presentation of financial statements as followed in Pennsylvania, explained by John A. H. Keith, superintendent of public instruction for the state. State school statistical reports and records as done in Kansas were presented by George A. Allen, Jr., state superintendent of public instruction of Kansas.

A symposium on publicity was presented by C. G. St. John, South Dakota; Ernest W. Butterfield, New Hampshire, and W. F. Bond, Mississippi. Another symposium on state equalization funds and their distribution was ent of schools at Somerville, Mass.

Wisconsin, and Albert S. Cook, Maryland.

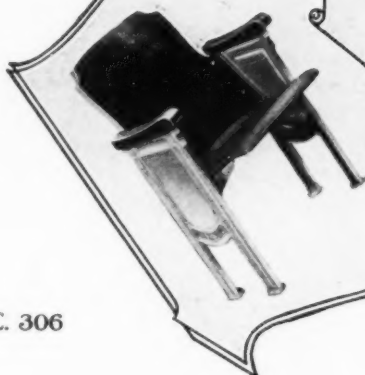
Other speakers on the program were: John William Cooper, California; Agnes M. Samuelson, Iowa; T. H. Harris, Louisiana; R. E. Tidwell, Alabama; Webster H. Pearce, Michigan; Charles H. Elliott, New Jersey; Francis G. Blair, Illinois, and J. M. McConnell, Minnesota.

HEYWOOD-WAKEFIELD SCHOOL FURNITURE

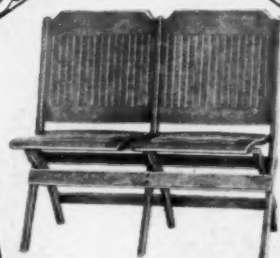
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San Francisco, Calif.
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News of the Month

New Courses of Study for Indiana High Schools

New courses of study for the high schools of Indiana that have been in the process of preparation since last May have been sent by the inspection division of the Indiana Department of Education to several out-of-state colleges and universities, to state departments of education, to all educational publishers whose books were state adopted, to all city, town and county superintendents of Indiana, to departments of education of all colleges, normal schools and universities of the state, to all libraries of these higher institutions, to all private and parochial schools and to many other agencies and organizations interested in the public schools of the state. Due to limited financial facilities, it was not possible to place a new course of study in the hands of each teacher for his own private use and consequently, local school officials to whom these copies were sent, have been asked to make this information available for each teacher by direct access, group conferences, faculty meetings and by mimeographed forms.

Philadelphia Bank Makes Loans to Teachers

That steps have been taken to brighten teachers' rainy days is revealed in the announcement made by the Mitten Bank of Philadelphia, to the effect that sums as high as \$1,000 will be loaned to teachers without collateral or endorsement, according to a report in the *Journal of Education*. The interest rate on these loans is fixed at 6 per cent, and as much as \$200 will be loaned without any inquiry as to what use will be made of it.

Pupils Participate in "Big News" Contest

Potential newspapermen and women in the schools of Washington, D. C., and the vicinity are contributing articles to the *Washington Post* in a "Big News" contest being conducted by that newspaper. Interest in current events, judgment as to their relative importance and skill in English composition are elements in the contest. A prize of \$5 each week is given for the best 250-word essay by a school child in grade and junior high schools and for the best by a pupil in senior high school, telling what was the big news of the previous week.

Unrestricted Freedom Is Lot of St. John's Senior Fellows

Three senior fellowships, carrying with them an unprecedented amount of freedom, have been created by the board of visitors, St. John's College, Annapolis, Md.

The sole requirement to be made of a senior fellow is

that he must be in residence at St. John's during the academic year. In that year he is not required to attend classes. Neither is he required to take examinations. At the end of the year he is to be given a degree.

"Complete and absolute freedom to pursue the intellectual life in residence in St. John's College in whatever manner and direction he himself chooses, as the guest of the college," is to be the lot of the senior fellow, according to the announcement.

How Buffalo Evening-School Pupils Make Time Count

Evening-school pupils of Buffalo, N. Y., turned out last year articles of clothing, handiwork of various kinds, furniture and household furniture to the value of \$212,187, according to a government statement.

At an actual cost of \$62,483 articles valued conservatively at \$212,187 were made by pupils in evening schools of Buffalo, N. Y., last year. The 6,922 persons enrolled turned out 27,599 articles, comprising clothing, dress accessories, embroidery work, woven goods, quilts, basketry, reed work, furniture and other household furnishings. The evening classes specialized last year in making over old clothing, and hundreds of well-made garments were produced at little cost other than the expenditure of time and effort.

University of California Has First Dormitory

A gift of \$350,000 from Mrs. Philip E. Bowles to the University of California, Los Angeles, has made possible the construction of the first university owned dormitory, Bowles Hall. According to an announcement in *School and Society* for December, the building is nearing completion, and will be opened for men students in January.

The dormitory will accommodate 105 men. There will be forty-six suites of two bedrooms and study, two suites of one bedroom and study, and eleven single rooms. The rates will include both room and board.

Yale Students Seek Caste Classification

That the students as well as faculty members and educational authorities are beginning to realize a decided distinction between two classes of students, has been revealed at Yale University where members of the student body have requested that a caste distinction be made among the students, according to an article in the *American Educational Digest*.

The two classes of students specified are, first, those who come to college for the social and athletic advantages and, second, those who are attracted by scholastic opportunities. It is maintained that such a classification would place all students in a better position to obtain the desired results.



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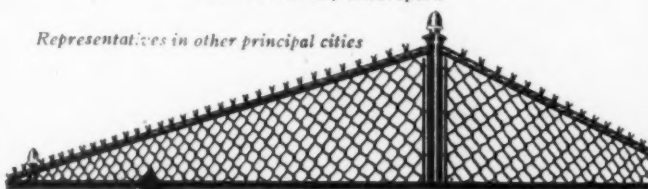
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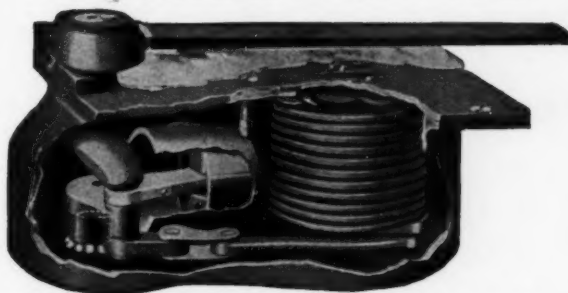
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Door Stays and Holders

In the Educational Field

EARL E. SMULL is now the supervising principal of the schools at Bridgeport, Pa.

T. C. GRIMES is the newly appointed superintendent of schools at Emerson, Neb. He was formerly the superintendent in Custer County, Nebraska.

H. O. BIXLER has resigned as superintendent of schools at Fairmount, Neb., and has accepted a similar appointment at Cozad, Neb.

LULA B. REED is the new superintendent of schools in Montgomery County, Iowa, succeeding MRS. HATTIE HOUGH, resigned.

L. A. PACKARD, formerly principal of the high school at Huron, Mich., has been appointed to succeed H. A. DAVIS as superintendent of the Huron schools. MR. DAVIS is retiring from the educational field.

IRA C. LANDIS is the newly elected superintendent of schools at Riverside, Calif.

H. C. PETRAY, after forty-five years of service in the public schools, has resigned as principal of the Woodrow Wilson Junior High School, Oakland, Calif.

C. E. CHENOWETH is the new superintendent of schools at Bakersfield City, Calif.

EVERETT W. IRELAND was recently elected superintendent of schools at Somerville, Mass.

C. V. KILGORE has resigned as county superintendent of schools for Noble County, Indiana, and ROMA MILLER has been appointed to succeed him.

W. C. WILEY, formerly superintendent of schools at Ridgeville, Ind., has received a similar appointment at Jonesboro, Ind.

IRA L. PLUMMER has received the appointment as superintendent of schools at Oakes, N. D., succeeding L. B. SLATER, resigned.

G. W. GOTKE has resigned his position as principal of the Brackenridge High School, San Antonio, Texas, and will become superintendent of schools at Brownsville, Texas.

RAYMOND E. PINKHAM recently took over his new duties as superintendent of schools at Weehauken, N. J.

W. G. LUDLOW, for six years principal of the La Porte High School, La Porte, Ind., has tendered his resignation, and AGNES V. ANDERSON, former dean of girls, has been named temporary principal in his place.

OWEN JAMES has resigned as principal of the high school, Miami, Okla., and will retire from the educational field.

O. J. MOULTON has resigned as superintendent of schools at Wethersfield, Conn., and has accepted the appointment as supervising principal of the schools in Neptune Township, N. J. His successor is WILSON GREER, formerly superintendent at Groton, Conn.

THOMAS FREENEY is the newly appointed superintendent of schools at Brooksville, Miss.

R. W. BARDWELL, formerly superintendent of schools at Rock Island, Ill., has been engaged as superintendent of the Madison, Wis., schools.

FRANK BOREN has resigned as principal of the University High School, Oakland, Calif., and is now superintendent of schools at San Mateo, Calif.

CHARLES L. JOHNS is the new superintendent of schools at Huntington Park, Calif. He was formerly vice-principal of the high school there.

H. M. HARDY has resigned his position as superintendent of schools at Glenrock, Wyo.

LESTER K. ADE, formerly dean of the State Teachers' College, West Chester, Pa., is the newly appointed principal of the State Normal School at New Haven, Conn.

JOHN C. ANTHONY resigned his position as superintendent of schools at Danvers, Mass., in order to accept a similar appointment at Dedham, Mass. His successor is IVAN G. SMITH, formerly principal of the Holten High School, Danvers, and Mr. Smith's successor is CORNELIUS F. DUNN who has been submaster at Holten High School.

O. F. BARNARD is the newly appointed superintendent of schools for Atchison County, Kansas, succeeding ADA SMITH, resigned.

L. W. ADAMS resigned his position as superintendent of schools at Casselton, N. D., and will accept a similar appointment at Anoka, Minn.

HEROLD HUNT, who resigned as principal of St. John's High School, Baraga, Mich., has been succeeded by WALTER R. CLEMINSON, formerly principal of the consolidated high schools at Baraga.

JUSTIN A. MORRISON, having resigned as superintendent of schools at Lincoln Park, Mich., has been succeeded by C. C. FRANCE, supervisor of instruction in the Lincoln Park schools.

LAYTON SMUTZ is the newly elected principal of schools at Rokeby, Neb.

E. L. WEAVER, who served for eleven years as superintendent of schools at Clarinda, Ia., has accepted the superintendency at Scotts Bluff, Neb. EARL C. DUNCAN is his successor at Clarinda.

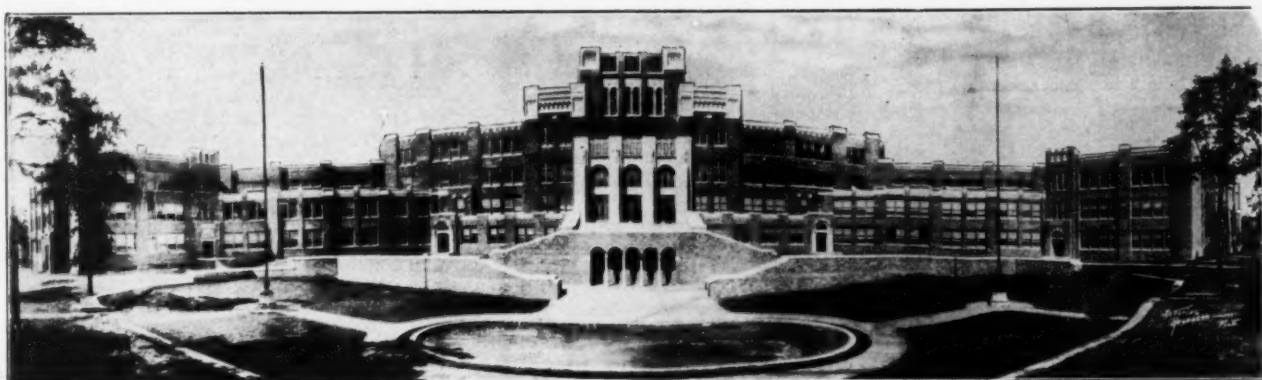
ALLEN R. NIEMAN is the newly appointed superintendent of the consolidated school at Buck Creek, Ia.

H. S. UPJOHN is the new superintendent of schools in Los Angeles County, California.

HIRAM ALEXANDER has been appointed superintendent of schools at Merna, Neb.

W. S. BRISCOE, formerly assistant superintendent of schools at Kellogg, Idaho, has been appointed principal of the Chabot School, Oakland, Calif.

W. A. FERGUSON, principal of the Union High School, Portersville, Calif., died following an operation for appendicitis. B. H. GRISEMER, vice-principal, has been appointed to fill the vacancy.

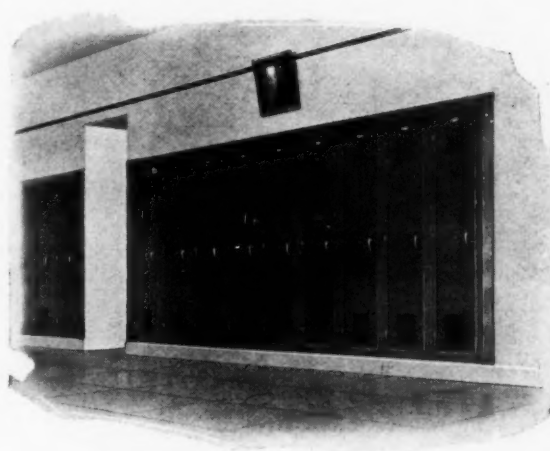


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In the Educational Field

DR HOMER H. SEERLEY has become president emeritus of Iowa State Teachers' College, Cedar Falls, Iowa, and DR. O. R. LATHAM has accepted the appointment as his successor.

FRANK A. HENDERSON is the recently elected superintendent of schools at Burbank, Calif.

MRS. GLADYS BRADLEY has been named as the new superintendent of schools in Osceola County, Iowa, to succeed ELIZABETH TREI, resigned.

CHARLES G. HETHERINGTON, who was formerly director of the grade schools at Elmira, N. Y., has taken the position as superintendent of schools at Penn Yan, N. Y., which was left vacant following the resignation of W. EUGENE DEMELT.

FRANK M. SMITH has resigned as superintendent of schools at Johnson City, N. Y.

THURSTON J. DAVIES has resigned as headmaster of the Nichols School, Buffalo, N. Y., because of poor health. MITCHELL GRATWICK will fill the vacancy.

JOSEPH E. JEFFERY, now principal of the Congress High School, Bridgeport, Conn., will become head of the new Bassick Junior High School, which is almost completed. The Congress school building will be used as an addition to the Central High School, under the supervision of JAMES C. MOORE, principal.

NICHOLAS MURRAY BUTLER, president of Columbia University, has succeeded the late WILLIAM MILLIGAN SLOANE as president of the American Academy of Arts and Letters.

U. E. DIENER has resigned his position as superintendent of schools at Celina, Ohio, and has accepted a similar position at Van Wert, Ohio.

THOMAS G. SYLER, formerly superintendent of schools at Shanesville, Ohio, has been appointed county superintendent of schools in Holmes County, Ohio. A. C. BAHLER has been named as his successor.

J. F. ALFORD is the new superintendent of the Fairfield centralized school, Madison County, Ohio.

GEORGE E. BOWMAN has accepted the appointment as superintendent of schools at Marion, Ohio.

SUSAN M. DORSEY has resigned the superintendency of the city schools, Los Angeles, Calif. FRANK A. BOUELLE, assistant superintendent, has been appointed to fill the vacancy, and W. W. TRITT will succeed MR. BOUELLE.

DR. ELBERT W. GRIFFITH, who has been superintendent of schools at Glen Falls, N. Y., for twenty-seven years, died from injuries received when he was struck by an automobile.

REV. G. MORRIS SMITH has been elected president of Susquehanna University, Selinsgrove, Pa.

DR. HERVIN U. ROOP, who has been associated with Wheaton College, Norton, Mass., has been elected president of Lincoln Memorial University, Harrogate, Tenn.

IRA INSCO CAMMACK, superintendent of schools in Kansas City, Kan., has retired after serving in that office for the last fifteen years.

CHARLES A. WALKER, formerly superintendent of schools at Chelmsford, Mass., has recently been elected superintendent of schools at Maynard, Mass.

WILSON HAWKINS has resigned his position as superintendent of schools at Canton, Ohio.

GEORGE H. MERIDETH, who has been assistant superintendent of schools at Bisbee, Ariz., is now holding a similar position at Pasadena, Calif.

DR. HERMAN LEE DONOVAN took up his duties as the new president of Eastern Kentucky State Teachers College, Richmond, Ky., October 25.

DR. HARVEY NATHANIEL DAVIS became the third president of Stevens Institute of Technology, Hoboken, N. J., November 23.

A. B. DAVIS recently retired as principal of the high school at Mount Vernon, N. Y. He has served thirty-five years in that capacity.

HENRY SMITH has been elected superintendent of schools at South Milwaukee, Wis.

A. F. STAUFFER was recently appointed assistant superintendent of schools at Jersey City, N. J.

O. S. MAUETH, formerly of Henderson, Minn., has been elected superintendent of schools at Elbow Lake, Minn.

MORRIS J. BAMBERGER, for twenty-eight years principal of the Bergen Street School, Newark, N. J., died recently after a short illness.

DR. F. C. WAGNER, president, Rose Polytechnic Institute, Terre Haute, Ind., was instantly killed when he was struck by an interurban car as he was leaving the school campus.

R. N. TAYLOR, formerly supervising principal of the Hellertown Public Schools, Hellertown, Pa., is now assistant superintendent of schools in Northampton County, Pa. M. E. ILLICK is Mr. Taylor's successor at Hellertown.

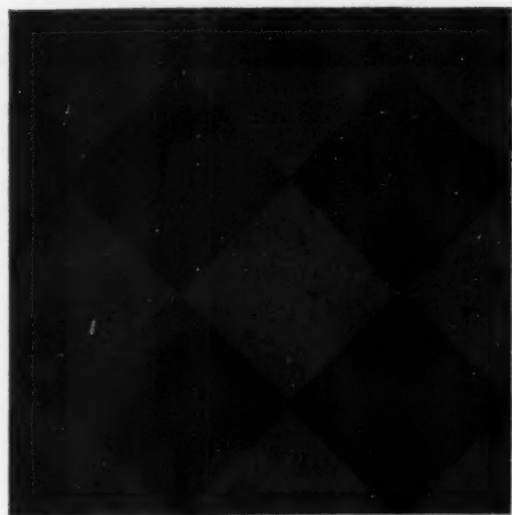
Southern Music Educators to Meet in March

The Southern Conference for Music Education, of which William Breach, Winston-Salem, N. C., is president, will meet in Asheville, N. C., March 6, 7 and 8. It is expected that the Federated Music Clubs of North Carolina will convene in Asheville at the same time. The All-Southern High-School Orchestra and Chorus will also meet in Asheville, March 4 to 8. This brings into assembly one of the greatest musical gatherings in the history of North Carolina.

The following states are included in the Southern Conference for Music Education: North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Kentucky, Tennessee, Virginia, West Virginia, Maryland and the District of Columbia.

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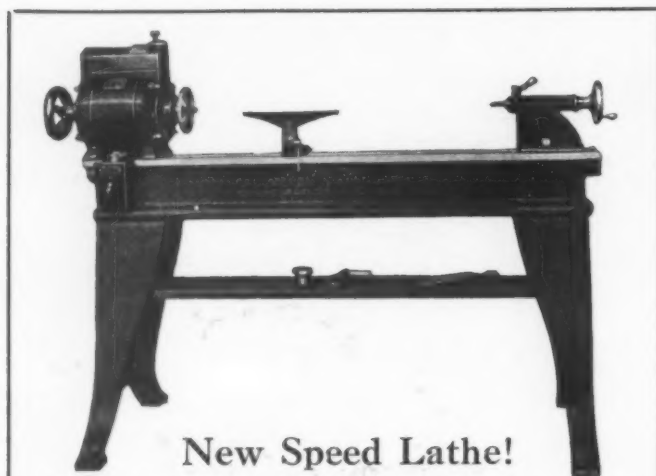
Before you specify any type of tiling, let us send you our Color Chart of different designs, with other detailed information. If a solid, seamless, one-piece floor surface is preferable for your need, ask also for the data on Duraflex-A.

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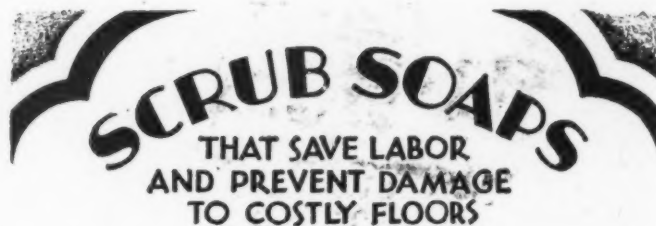
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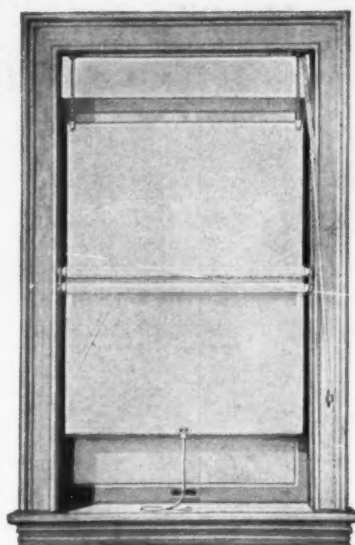
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Efficient School Lighting!

KAYLINE Units have solved the problem of many representative schools throughout the country. They eliminate shadows and eye strain by giving perfect illumination. Their performance measured in terms of

light intensity reaches an average of 90 per cent, the highest ever attained in modern school lighting units.

Literature and complete data may be had for the asking. Our engineers will gladly analyze your lighting problems, make recommendations and submit samples for test purposes. This service entails no obligation.

THE KAYLINE COMPANY

606 Huron Road.....Cleveland, Ohio

Manufacturers of Lighting Equipment Since 1895



An Applicator Bottle

furnished with our compliments in your own medicine cabinet will soon convince you that

MERCUROCHROME—220 SOLUBLE

(dibrom-oxymercuri-fluorescein)

IS THE

Logical Successor to Tincture of Iodine

FOR

First Aid Prophylactic and General Antiseptic Use

Mercurochrome stains as Iodin does, and it is the stain of Mercurochrome, as it is of Iodin, that shows just where and how effectively the germicide has been applied; it fixes the bactericidal agent in the field for a relatively permanent period which prolongs the asepsis or the sterilizing effect, and it provides for demonstrable penetration into the tissues beneath the superficial surfaces. Inasmuch as Mercurochrome is definitely proved an extremely efficient general antiseptic, it is only reasonable to consider it the successor to Iodin in this field, as it is free from the objectionable features of Iodin, for

MERCUROCHROME DOES NOT IRRITATE, BURN OR INJURE TISSUE

SELL YOURSELVES FIRST

**HYNISON, WESTCOTT
& DUNNING**

BALTIMORE, MD.

HYNISON, WESTCOTT & DUNNING,
DEPT. N, BALTIMORE, MD.

*Please send me Mercurochrome Applicator Bottle for
personal use.*

Name

Business Address

Scenery

Asbestos curtains,
Velour curtains

and

Stage scenery for your
Auditorium stage.

Twenty years of experience in equipping High Schools has placed us in a position to know the particular requirements for your stage.

Write us for further information or request call from our representative.

Twin City Scenic Company

2819 Nicollet Ave.,
Minneapolis, Minn.

2310 Cass Ave.,
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Needless Noise

If Your Chairs Are Not
Equipped with Chair Tips
That Really Eliminate
Noise, You Are Tolerating
an Unnecessary Nuisance.

Write Today for Free Sample
Set of CLINCHER TIPS

CLINCHER CUSHION CHAIR TIP CO.
FULLERTON CALIF.

Maple Flooring for Schools

REPEATED tests have proven that there is no substitute for hard maple floors in schools. Its even textured fibres toughened by hard winters assure you of the floor which will withstand the rough and hard usages to which they are exposed by children's feet. By specifying Robbins Hard Maple Flooring you are assured of a first class floor.

ROBBINS FLOORING CO.

Members M. F. M. A.
Rhineland, Wisconsin

Make the most of classroom windows

EVERY bit of daylight that you can let into classrooms is valuable now. For daylight is scarce these short winter days and young eyes must be guarded from strain. Make sure that every classroom gets its quota of daylight by keeping windows clean the easy Oakite way.

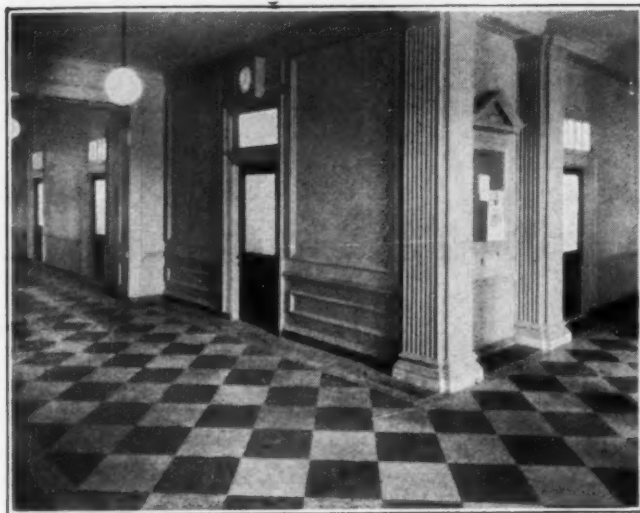
A mild solution of Oakite works wonders on dirty windows. Cloudy deposits, soot, grease and other dirt are quickly loosened by the vigorous cleaning action of this sudsless material. Then a rinse leaves the panes spotless and clear as crystal. No soapy film remains to keep out light and quickly collect more dirt, because Oakite contains no soap or soap powders.

The speed and thoroughness with which work is done with Oakite will enable you to keep down expenses on all school cleaning. It will pay you to investigate. Write for booklets giving formulas and directions. No obligation.

Oakite Service Men, cleaning specialists, are located in the leading industrial centers of the U. S. and Canada

Manufactured only by
OAKITE PRODUCTS, INC., 28D Thames St., NEW YORK, N. Y.

OAKITE
Industrial Cleaning Materials and Methods



*Wright Rubber Tile installation—Building for architecture and kindred subjects—University of Illinois, Urbana, Ill.
Chas. A. Platt, New York, Architect.
James M. White, Urbana, University of Illinois, Architect.*

Proof of Performance

SCHOOL installations of Wright Rubber Tile running into thousands of square feet indicate the practicalness of this material for school use. Colleges, high schools, ward schools and universities in all parts of the country have adopted this modern flooring for its outstanding advantages.

First it affords perfect quiet. The rubber composition absorbs the sounds of hurrying feet and scraping chairs. It is soft and resilient giving restful comfort to those who must spend a large part of the day on their feet. The attractive, smooth surface is easy to clean and maintain. A Wright tiled floor is the most sanitary.

In addition to its other qualities Wright Rubber Tile is long lived. Its scientific composition resists wear to an unusual degree, in fact tests have shown it will outwear any other type of floor with the possible exception of marble. With all these exceptional features the price compares very favorably and on a service basis, shows decided economies on every installation.

Wright Rubber Tile is made in a great variety of colors and patterns. Any color scheme in a room can be matched or contrasted. With this modern material the floor can be permanently included in the general decorative scheme.

A new chart of color patterns has just been prepared. Write for a Free copy and a list of prominent school installations.

Wright Rubber Products Co.
Dept. N.S. Racine, Wisconsin



Dignity— plus protection

Dignity, distinction and durability should go hand in hand in the fencing of school properties. But most important of all is protection of pupils.

Stewart iron and wire fence for school enclosures are exceptionally strong and rugged. It affords the happy combination of serviceability and attractive appearance.

Stewart School Fence protects, and at the same time beautifies.

Write for the catalog of the comprehensive Stewart Fence Line.

**THE STEWART IRON
WORKS CO., Inc.**

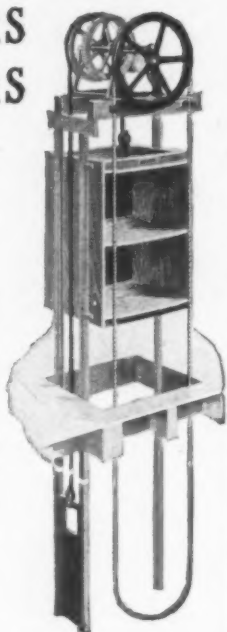
416 Stewart Block
Cincinnati, Ohio

Representatives in all principal cities



SEDGWICK DUMB WAITERS and ELEVATORS

OUR ADVISORY Department, with a broad experience of 37 years, invites inquiries from Schools and Colleges. The Type "FDCG" Geared Automatic Brake Dumb Waiter is most suitable for usual requirements. Others are shown in our New Catalog, which will be sent upon request.



Type "F D C G"

Sedgwick Machine Works
165 West 15th Street New York

Manufacturers of Ash Hoists and Freight Elevators

The Ideal Indoor Grandstand

Where Floor Space Is Limited.

The
Wayne Type "C"
Safe Steel Grandstand

Especially designed to provide the maximum seating capacity in small areas. Easily erected, will not mar floor. Can also be used outdoors.

Prompt Shipment. Order now
for your basketball games.

Catalog and prices on request

Wayne Iron Works

Lincoln Highway and Pembroke Ave.
Wayne, Penna.

Representatives in:
BALTIMORE; CAMBRIDGE, MASS.; NEW YORK; INDIANAPOLIS;
MINNEAPOLIS, MINN.; LINCOLN, NEB.; KANSAS CITY

Free!

The Lincoln Twin Disc Floor Machine sets the standard for speed, thoroughness, economy, silent operation. Prove this yourself. We offer you a FREE trial.

Write for Details



LINCOLN-SCHLUETER
FLOOR MACHINERY CO., Inc.

233 West Grand Avenue
CHICAGO, ILLINOIS



SAVOY

750
ROOMS

HOTEL

EVERY
ROOM
WITH BATH



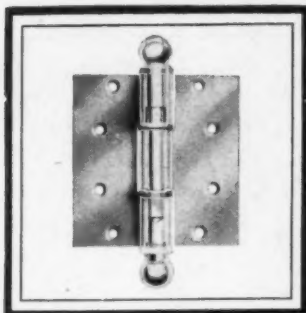
IN THE HEART OF
DETROIT

WOODWARD at ADELAIDE

An Atmosphere
of Charm and
Refinement

SAVOY GRILL
SINGLE
\$2.50
to \$4.00
PER DAY
SELECTED FOODS

COFFEE SHOP
DOUBLE
\$4.00
to \$5.50
PER DAY
OF FAMOUS QUALITY



They Bring
School

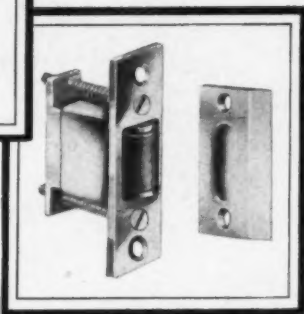
Doors Under Control

This special school hardware by McKinney consists of a hinge providing constant friction control, (eliminating free-swinging, slamming doors); a Noiseless Roller Catch, taking the place of a metal latch; and a Rubber Door Stop acting as a cushion.

The Noiseless Roller Catch

requires no knob to retract the bolt to open the door. A push on the door is all that is necessary. Most class room doors open into the halls. The McKinney Catch therefore makes an ideal safeguard against fire and panic dangers. Write for details to McKinney Mfg. Co., Pittsburgh, Pa.

McKINNEY
friction control
HINGES



SOUND-PROOF PARTITIONS between AUDITORIUM and GYMNASIUM

Architects have proven that the sound-proofing efficiency of Hamlin's Sound-Proof Doors and Folding Partitions makes possible economy of space and simplification of plans that reduce building costs and greatly improve the utility of adjoining rooms.

As illustrated at the left, the auditorium receives the benefit of the gymnasium to use as a very large stage, thereby making the gymnasium more valuable because of greatly increased seating facilities. While each may be used separately if desired. This folding partition in the Bexley High School, Columbus, Ohio, is 19 feet high by 60 feet wide.

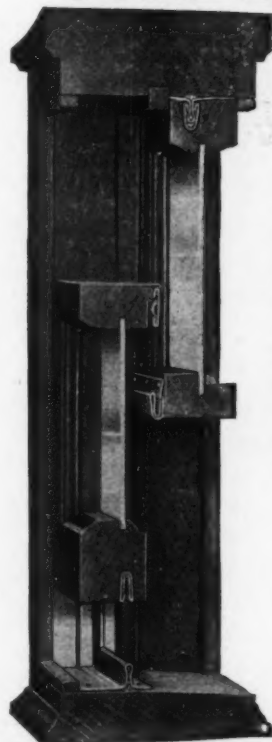
Send for Catalog

**IRVING
HAMLIN**

Manufacturers
Sound-Proof Doors and
Folding Partitions

1501 Lincoln St.
Evanston, Ill.

Cold Scholars cannot study



or concentrate on class work. The quickest way to increase the efficiency of your heating plant is to have **ATHEY** cloth lined metal weatherstrips immediately installed. It costs very little to make school-rooms draft-proof when compared to the saving in fuel and the benefits to the school averages. Records show that it seldom takes three years to pay for the installation of **ATHEY** Weatherstrips, not taking into account the saving because of cleaner rooms and less fuel and ashes to handle.

Athey

Cloth Lined Metal
WEATHERSTRIPS

ATHEY WINDOW SHADES
The Perfect School Shade
Send for our New Catalog

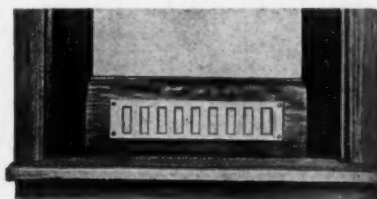
Notice how completely **ATHEY** Weatherstrips seal the window against drafts, dust, and smoke by the cloth-to-metal contact—the only method devised that makes windows weather-tight without making them hard to open and close.

ATHEY COMPANY
6114 W. 65th St., CHICAGO, ILL.
Representatives in principal
cities and in Canada

"FRESH AIR . . . EVERYWHERE"

Only **V-W** VENTILATORS have the Patented R-Shaped Vertical Louvers!

The cross-section above shows the patented R-shaped vertical louvers that admit fresh air without draughts, dirt, rain and snow. This is a feature on both Sashrail and removable ventilators.



Interior View of
SASH RAIL
VENTILATOR

Built right in to the
window frame for
fool-proof ventilation.

Ventilate for Health with V-W Ventilators!

They alone have the patented R-shaped vertical louvers, that actually cause a flow of fresh clean air.

Write for "The Opening to Better Health"

The V-W VENTILATOR CO.
2885 A. I. U. Building
Columbus, Ohio

SAMUEL FRENCH'S PLAYS FOR SCHOOLS

Include the latest and most successful works of the best authors. Among the new additions to the 1929 catalogue are:

The Best People, Laff That Off, The Meanest Man in the World, New Brooms, Skinner's Dress Suit, The Mystery Man, Is Zat So?, The Gossipy Sex, A Prince There Was, Fool's Gold, Little Old New York, Wake Up, Jonathan! The Fall Guy, The Springboard, Tommy, and Take My Advice.

Our new 400-page Catalogue is a cyclopedia of reference, including descriptions of thousands of plays. It is indispensable to all who produce, read and study plays. Send for the 1929 edition. Free of charge.

SAMUEL FRENCH

INCORPORATED 1898

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Managing Director

25 WEST 45TH STREET
NEW YORK CITY

In Philadelphia Your Choice Should Be

THE HOTEL MAJESTIC

BROAD ST. AND GIRARD AVE.
PHILADELPHIA

400 LARGE ROOMS

only Hotel in Philadelphia with a
subway entrance from main lobby

MOST MODERATE RATES!

Single room, running water \$2

for two \$3.50

Single room, private bath \$3

for two \$5.50

Garage connected with hotel

WIRE AT OUR EXPENSE
for RESERVATIONS!

JNO. C GOSSLER
Mgr. Dir.



BY actual measurement, the working space on top of a school desk is increased two and one-half times by the use of this great improvement—the famous

MOESER Extended Arm

Already in use in a great many schools, this has proved to be a remarkable improvement. These advantages have been demonstrated:

—Available working surface more than doubled.

—Full support for the back while writing.

—Arm supported while writing, resulting in better penmanship and less fatigue and nervous strain.

—Correct posture, encouraged by this Arm, insures protection from direct and reflected glare on the eyes.

—No necessity to twist body or incur strain on the spine.

**2½
Times
Available
Working
Space**

*At a Trifling
Increased Cost*



The Moeser Supporting Arm Top can be furnished with any National School Desk.

We manufacture desks of many designs. Send for our complete Catalog.

The National School Equipment Co.

MANUFACTURERS OF COMPLETE SCHOOL
EQUIPMENT

PORT WASHINGTON

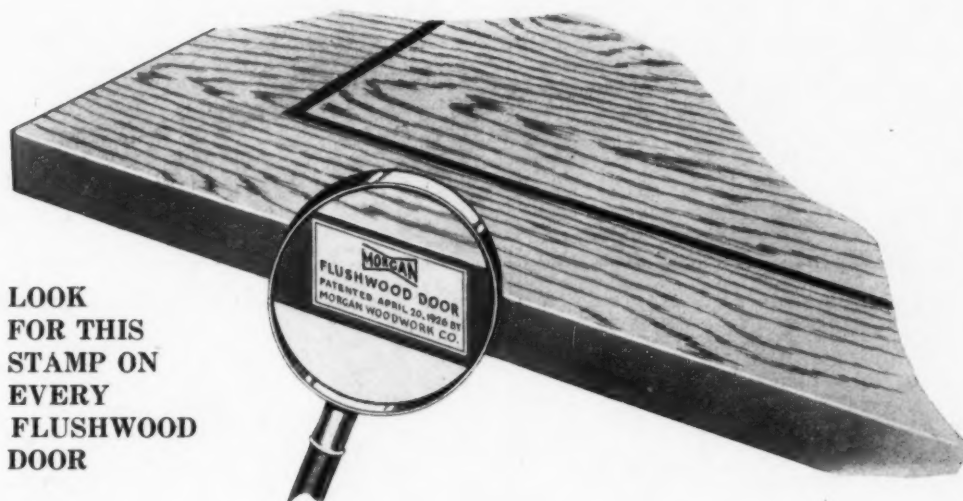
WISCONSIN

NATIONAL School DESKS
"Famous for Comfort"

There is only One

FLUSHWOOD (PATENTED)

MADE ONLY BY MORGAN



LOOK
FOR THIS
STAMP ON
EVERY
FLUSHWOOD
DOOR

No other door offers the many practical advantages of construction that have made Flushwood the outstanding door of its type.

Taken point for point no other door is comparable to it. A careful investigation will satisfy the most thoughtful builder of the advantages embodied in Flushwood.

In school construction, especially, Flushwood is the ideal door. It is Sound Resistant to a remarkable degree—Lighter in Weight—Low in Cost—Sturdy in Construction. These are a few of the many features which make it the most practical flush door on the market.

Look for the Flushwood trade mark on the doors you buy. It is your guarantee of quality and complete satisfaction. *There are no substitutes for FLUSHWOOD!*

WRITE FOR CATALOG

MORGAN WOODWORK ORGANIZATION

MORGAN SASH AND DOOR CO.
Chicago Detroit Cleveland

MORGAN COMPANY
Oshkosh, Wis.; New York City

MORGAN MILLWORK CO.
Baltimore; Jersey City; Greensboro, N. C.; Wilmington, Del.

NOISELESS—

ASBESTONE Plastic Magnesia Flooring is not only NOISELESS but has every other desirable feature as well. It meets every requirement for schools and colleges as will be seen by these buying points:

Durable

Non-dusting, fireproof, waterproof. Preserves its fresh appearance under years of terrific wear.

Inexpensive

Moderate first cost, upkeep practically nil.

Sanitary

Smooth, jointless, easily cleaned; may be waxed and polished.

Comfortable

Easy to the tread, non-slippery, noiseless.

Easily Applied

Over any new or old sub-floors, at any angle, over and around any irregularities.

Distinctive Appearance

A large variety of rich colors.

Service

Our own chemical laboratory and technical department test and verify every shipment for uniform, high quality. A large staff of skilled mechanics insure completion of the largest contracts on schedule.

Guarantee

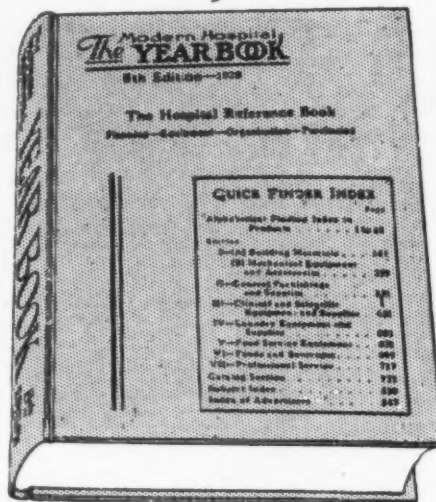
A uniformly high standard product, backed by the integrity of the Muller name and more than 20 years of manufacturing experience.

May we send you samples and descriptive literature?

FRANKLYN R. MULLER, Inc.

Manufacturers of Asbestone and Sana-bestos Tiles
301 Madison St. Waukegan, Illinois

Established 1906



SCHOOLS, Colleges and Universities having infirmaries and hospitals will find a practical use for The MODERN HOSPITAL YEAR BOOK, 9th Edition, 1929. This annual reference volume, with its 900 pages, is the one complete guide to the problems of hospital planning, equipment, organization and purchasing. It will serve an indispensable purpose, for it combines in one volume essential and detailed reference to the many considerations of this phase of school service.

The pre-publication price of The YEAR BOOK is \$1.00, delivery free. This New Edition will soon be released. Send your order now and take advantage of this present low price. After publication the price will be \$2.50.

THE MODERN HOSPITAL PUBLISHING CO.
660 Cass Street
Chicago, Ill.

A 1

plumbing layouts
for chemical
waste systems are of
no avail unless
A 1 drain lines
are installed.

this means the
drain pipe must
resist the attack
of all corrosives;
last the life of
the building;
pass all codes,
and be readily
installed.

Duriron acid-proof
drain pipe *alone*
meets all these
requirements.

for complete
data see Sweet's,
pages 2724-31,
or write us
for reprint.

**The Duriron
Company,
Dayton,
Ohio**



A Model E Electric with full safety features

Select the Hoist best qualified to do the job

When you have this condition—

Small volume of ashes.
(about 6 cans daily.)
Short distance of lift.
(About 10 feet.)
Hoistway opening against side of building.

USE a Model A G&G Telescopic Hoist operated by hand power. Only one man needed.

When you have this condition—

Small volume of ashes.
(About 6 cans daily.)
Short distance of lift.
(About 10 feet.)
Hoistway opening near curb or in driveway.

USE a Model B G&G Telescopic hand-power Hoist with Overhead Crane. One man easily loads ash truck.

When you have this condition—

Large volume of ashes.
(More than 15 cans daily.)
Deep hoisting area.
(15 feet or more.)
Hoistway opening against side of building.

USE a Model E G&G Telescopic Hoist operated ELECTRICALLY. One man raises large quantities to grade level.

And when you have this condition—

Large volume of ashes.
(More than 15 cans daily.)
Deep hoisting area.
(15 feet or more.)
Hoistway opening near curb or in driveway.

USE a Model D with Overhead Crane, operated ELECTRICALLY. Truck driver and boiler room fireman load large quantities without effort.

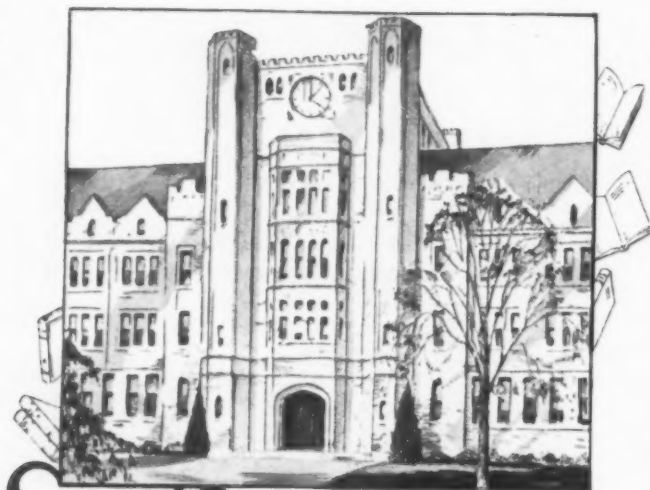
*This is important—*Be sure to insist upon complete G&G Sidewalk Doors and Spring Guard Gates which fully guard the sidewalk opening.

More than 1700 Schools use G&G Equipment

GILLIS & GEOGHEGAN
523 West Broadway New York, N. Y.

Telescopic Hoist
With Automatic Stop and Gravity Lowering Device





Save on Replacement Costs
with Shades of JOANNA CLOTH
rainproof
sunproof
sanitary
cleanable!

SCHOOL maintenance costs are materially reduced when every window is equipped with shades of the new Joanna Cloth by Stewart Hartshorn. This fine new shade cloth is rainproof, sunproof, dirt-resisting and cleanable. In fact, Joanna Cloth is practically *wearproof*.

With Joanna Cloth Shades, mounted on easy-running Hartshorn Rollers, there is no question of "can't we make them do another year?" Joanna Cloth "does" and "does" well for year after year of trim, neat, satisfying service. The specially tempered springs of Hartshorn Rollers assure dependable, responsive action.

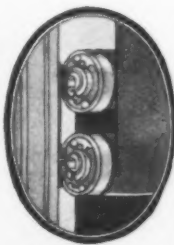
The soft moire finish characteristic of Joanna Cloth has been found beneficial to the eyes of growing children. Equip classrooms with these better shades — for good looks, efficient service and economy.

STEWART HARTSHORN COMPANY
250 Fifth Avenue, New York

For free circulation of air and properly diffused light in classrooms, use this arrangement—Hartshorn Shade Rollers installed with Double Bracket No. 87.

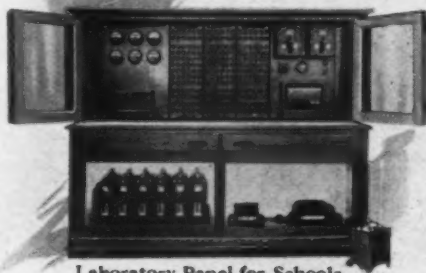
Hartshorn
Established 1860

SHADE ROLLERS and
WINDOW SHADE CLOTH



MADE BY THE MAKERS OF HARTSHORN SHADE ROLLERS

Holtzer-Cabot Signaling Systems Apparatus



Laboratory Panel for Schools



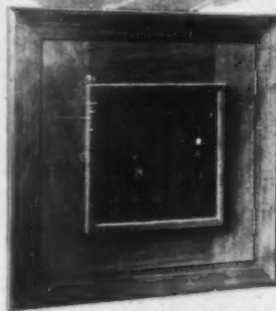
School Flush Phone

LABORATORY PANEL

A complete panel designed especially for use in High Schools and Colleges which have physical, chemical or electrical laboratories and lecture rooms.

The purpose of the panel is to enable the instructors to obtain at will any desired voltage or kind of current required to conduct demonstrations and experiments.

Full particulars will be sent upon request.



Masters Annunciator

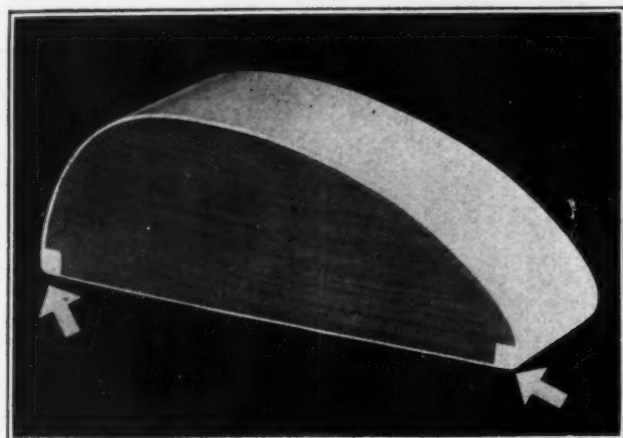
Manufacturers of Signaling Systems for over 50 years

**THE HOLTZER-CABOT
ELECTRIC COMPANY**

125 Amory Street
Boston, Mass.

6161-65 So. State Street
Chicago, Ill.

You Should Have Brunswick's Catalog.. Showing the Complete Line of Brunswick Closet Seats



Re-inforced
cushion edge
of Brunswick
White Seat

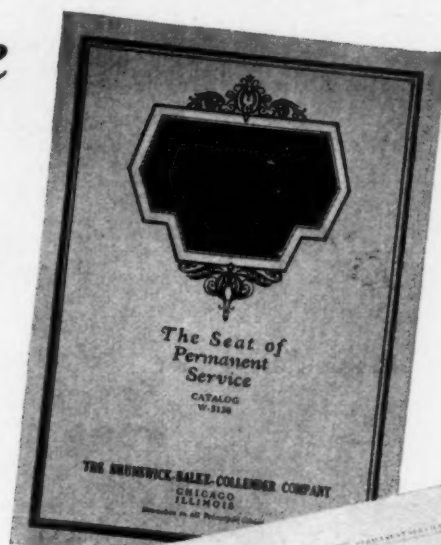
BRUNSWICK'S Seat line is now complete . . . no matter what type of closet seat you want, you will find it in Brunswick's new catalog. Write for your copy of this catalog now. Use the convenient coupon.

There are construction features in Brunswick Closet Seats too important to be overlooked. Brunswick Sheet Covered Seats (in white and in colors) have the exclusive re-inforced cushion edge. Instead of merely joining the two sheets of pyralin by butting or overlapping, as has been the custom, Brunswick in this new-type seat welds the sheets of pyralin to a cushion of the same material. The result is that the outer seat edge has pyralin *9 times the thickness of a single sheet* right where danger of damage is greatest.

No other white sheet-covered seat offers you this unique feature. It enables us to guarantee this edge against defects for an unlimited period.

Brunswick Whale-bone-ite, likewise, has construction features that make this the most durably constructed seat on the market. Our catalog gives you all details of all models. Place no order for closet seats of any kind before you get this catalog showing the Brunswick line.

JUST FILL IN, CLIP
AND MAIL THE
COUPON TODAY



Box 336 Seat Department,
The Brunswick-Balke-Collender Co.
623 So. Wabash Ave., Chicago

Send your complete catalog, showing all models of Brunswick
Whale-bone-ite, White and Wood Seats.

Name.....

Street.....

City..... State.....

THE BRUNSWICK-BALKE COLLENDER CO., 623 S. Wabash Ave., Chicago



Advertising Pages Are Text Pages

THE EXCERPTS quoted below are taken from advertisements in the current issue of The NATION'S SCHOOLS. Here the school administrator becomes acquainted with those facilities that comprise the physical makeup of the modern school. And here value is found that shares equal interest and profit with the editorial pages of the publication.

* * *

"Every bit of daylight that you can let into classrooms is valuable now. For daylight is scarce these short winter days and young eyes must be guarded from strain. Make sure that every classroom gets its quota of daylight by keeping windows clean."

* * *

"A-1 plumbing layouts for chemical waste systems are of no avail unless A-1 drain lines are installed. This means the drain pipe must resist

the attack of all corrosives; last the life of the building; pass all codes, and be readily installed."

* * *

"For few types of buildings must flooring be chosen with as great care and judgment as for the modern school building. Public money must be wisely spent. High standards of sanitation and health must be assured. Floors must be durable, resilient, easy to clean, untiring to youthful muscles."

* * *

"Many school assemblies, plays and operettas are ruined simply because of poor acoustics in school auditoriums."

* * *

"Eager and impressionable, the minds of little children are greatly influenced by their surroundings. So it is, that educational experts lay unusual stress on plumbing systems installed in elementary schools. For when fixtures are dignified and beautiful in design, when they are easily kept gleaming and spotless, they serve as an inspiration to children, developing their self respect, teaching them cleanliness."

Only those offering approved products or services for schools are invited to use the advertising pages of The NATION'S SCHOOLS

ANNOUNCING

the New No. 0 Saw Bench



The one variety saw bench for school shop work has arrived! . . . the Yates-American No. 0. It is a strictly modern, direct motor driven tool that will do everything the average school will ever call upon it to do, yet which can be installed at a minimum cost. Note in the above illustration the evident refinement in design and workmanship. This is the saw bench for which you have been waiting! Investigate it fully. Write for full details.

The No. 0 is furnished direct motor driven (belt drive if desired) with ball bearings for the arbor. The table is 27" x 30". It adjusts vertically 4½", tilts to 45 degrees and has removable throat plate. Two swivel cut-off fences adjustable from square to 45 degrees and one double face ripping gauge together with one 12" saw are furnished. The No. 0 rips to 13" wide and cuts-off to 12" wide. It is the one ideal saw bench for school use.

Train Your Students Today on Machines They will use Tomorrow

YATES-AMERICAN MACHINE COMPANY
Educational Department
BELOIT, WISCONSIN

75th Anniversary Special

These Special Quality

UNIFORMS For School Bands



Fast Color—All Wool—Interchangeable Capes—Tailored to Individual Measure

In any color combination desired. Monograms at a slight additional cost.

Every Uniform Waterproofed by the famous "Anti-Pluie" Process.

Coat, Trousers &

Cap \$16.75

Cape & Cap 7.00

Blouse & Cap 5.75

Trousers only 5.50

Send for Samples & Measurement Blanks.

D. Klein & Bro., Inc.

Makers of good uniforms since 1854

715-719 Arch St.
PHILADELPHIA, PA.

The School Library

has become an integral part of present day essential school equipment. It is important to the school official to know that he can put his library requirements into our hands with the feeling that the orders will be cared for completely and correctly to the last detail. We specialize in the library branch of the book business, handling library orders from many hundreds of School Boards and Colleges from all parts of the country. Satisfactory service and liberal discounts. Send us your next order, large or small, and avail yourself of the advantages which we offer to your Board.

A. C. McClurg & Co.
Library Department

333 E. Ontario Street - - - Chicago

Aznoe's Have Available for School Appointments:

(A) Dietitian: age 35, B.S. degree, ten years' varied experience. Competent to manage large school cafeteria.

(B) Registered Nurse, age 32, five years school experience; postgraduate work at University of California. Asks \$2,000.

(C) Woman Physician specializing past ten years in public school health work, available at \$2500.

No. 2128

AZNOE'S

CENTRAL REGISTRY for NURSES

30 North Michigan Avenue CHICAGO, ILLINOIS

GOOD UNIFORMS

breed

GOOD SPIRIT

which creates

GOOD BANDS

Standard-ized Uniforms are not only good but economical as well.

Available in all class colors

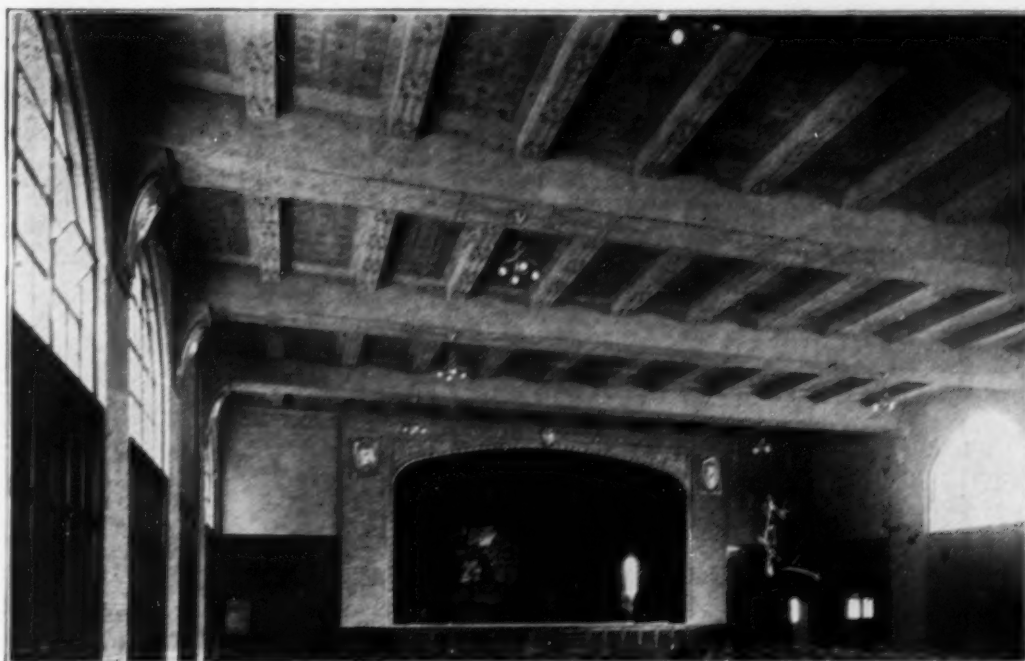
Send for samples and Details—state class colors



STANDARD APPAREL CO.
Manufacturers

1227 Prospect Ave.

Cleveland, Ohio



St. John's Parish Hall, Canton, Ohio. Acousti-Celotex adds beauty to the ceiling and eliminates disturbing echoes and reverberations. George P. Little Company, Acousti-Celotex Contractor.

Now . . . Good Acoustics for school auditoriums

MANY school assemblies, plays and operettas are ruined simply because of poor acoustics in school auditoriums.

Today you can prevent echoes and reverberations from spoiling your programs by installing Acousti-Celotex. This remarkable material provides correct acoustics, making the entertainments in your auditorium much more enjoyable.

Acousti-Celotex also *swallows up* the disturbing racket in school corridors, gymnasiums, manual training shops, natatoriums and other rooms.

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Acousti-Celotex comes in several different types, including BB, which has a sound-absorbing efficiency of 70%—the highest of any material on the market.

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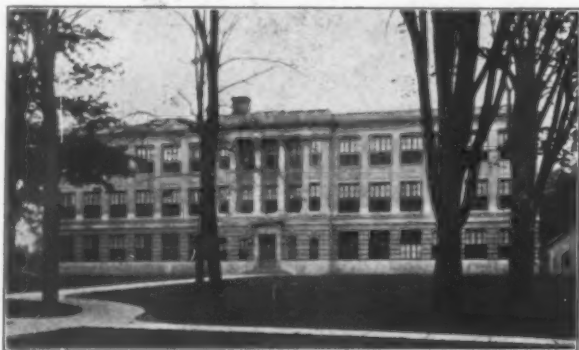
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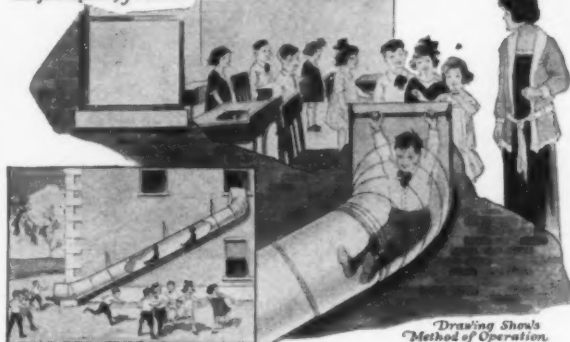
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From leading school superintendents and architects in localities throughout the country comes the opinion that Northern Hard Maple Flooring best fills the needs of educational structures. Typical of these opinions is the statement of Warren S. Holmes, well known architect with offices in Chicago and Lansing, Michigan.

Mr. Holmes says, "We elected to use hard maple for the floors in the Mason High School because we regard it as the most durable of school room flooring materials. It costs less in the long run than other floors and requires no repairs except for the replacing of the painter's finish from time to time."

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Floor with Maple



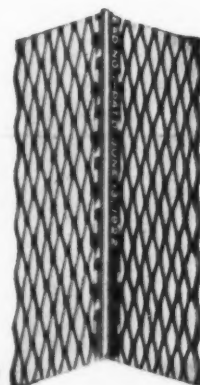
MILCOR STAY-RIB METAL LATH PROTECTS THESE BUSY CHILDREN FROM FALLING PLASTER *and Provides a Firesafe Daytime Home for Them*

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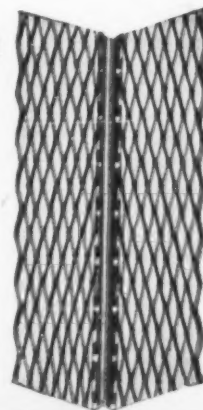
Stay-Rib Metal Lath should have your earnest consideration. It not only firesafes a school room, its rigid strength keeps the plastering crack-free and beautiful, insuring minimum maintenance cost.

Expansion Corner Beads should protect every plastered school building corner. Their expanded metal wings provide a base through which plaster keys close up to the corner, while the bead protects it.

The story of Milcor Stay-Rib Metal Lath is told in the Milcor Manual. School Architects, Contractors and School Board Secretaries should have copies in their files.



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Children are like Chameleons



WHILE attending school, boys and girls pass through one of life's most impressionable periods. Their habits and appearance quickly take on the "color" of their surroundings. That is why it is up to you, Mr. Superintendent or Board Member, to see that one of the most important lessons which children have to learn—*cleanliness*—begins right in their own schools. *And cleanliness begins with clean floors!* Floors which are only "clean enough" are not sufficient—they must be spotlessly and scrupulously clean.

Today hundreds of schools all over the country are keeping their floors clean through the installation of FINNELL SYSTEM. The FINNELL Electric Floor Machine waxes, polishes, scrubs, removes varnish and does light sanding. Whatever the floors may be—linoleum, tile, ter-

Two years ago we decided to try out the Finnell System of electric scrubbing in the care of our buildings. Before this time we had made use of a large force of floor scrubbers, but were unable to keep our floors in good clean shape. Your equipment enables us to keep the floors in our thirty-two buildings in first class condition at a saving in labor cost far beyond our calculation. We recommend it highly.

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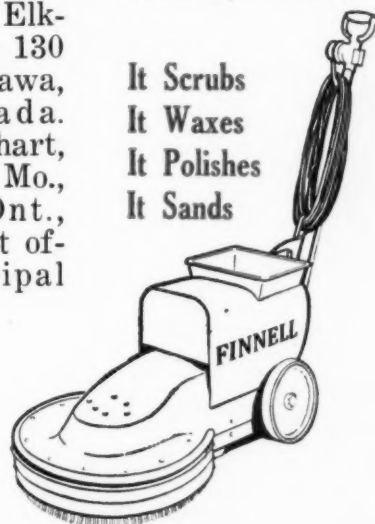
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razzo, wood block—the FINNELL puts them in excellent condition, and keeps them that way. Economical too. You will find that it will soon pay its own cost in time and labor saved, and floor surfaces preserved.

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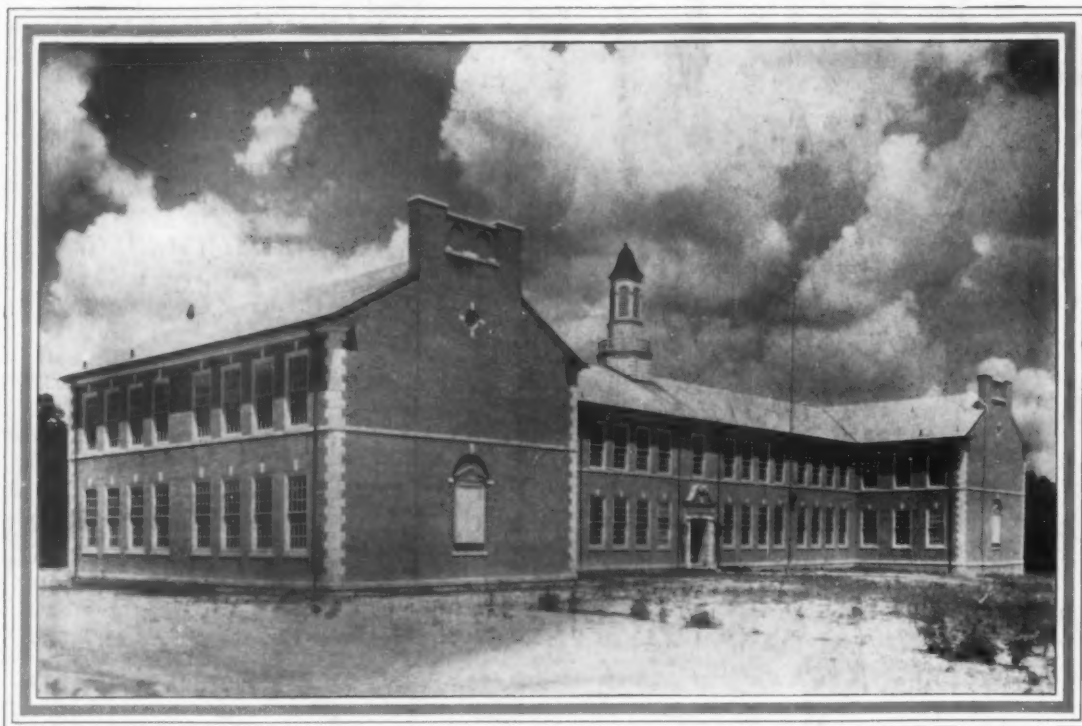
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CRANE VALVES



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Crystallizing character in the fluid minds of children

Eager and impressionable, the minds of little children are greatly influenced by their surroundings. So it is, that educational experts lay unusual stress on plumbing systems installed in elementary schools. For when fixtures are dignified and beautiful in design, when they are easily kept gleaming

and spotless, they serve as an inspiration to children, developing their self respect, teaching them cleanliness.

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